

No. 2016-1062

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**United States Court of Appeals**  
*for the*  
**Federal Circuit**

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**Appeal No: 2016-1062**  
**(Originating Patent Application No. 10/536,692)**

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**In re: Villena**

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**Appeal from the United States Patent and Trademark Office,  
Patent Trial and Appeal Board**

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**BRIEF FOR APPELLANTS**

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**UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT**

In re: Mario Villena et al.  
Appeal No. 2016-1062

**CERTIFICATE OF INTEREST**

Counsel for Appellants certifies the following:

1. The full name of every party or amicus represented by me is:

**Mario Villena, Jose Villena**

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

**None**

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

**None**

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court are:

**Law Office of Burman Y. Mathis**

December 4, 2015

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### **STATEMENT OF RELATED CASES**

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There are presently no other related cases before any court. The present application, however, has two child applications pending in the United States Patent and Trademark Office (hereinafter, “the PTO”).

### **JURISDICTIONAL STATEMENT**

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This case is appealed from a final decision of the Patent Trial and Appeal Board (hereinafter “the Board”) rendered May 21, 2015, and a denial after a Request for Rehearing rendered July 21, 2015. This Court has jurisdiction under 35 USC §141, and the appeal is timely under 37 CFR §1.304.

### **ISSUES PRESENTED**

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I. The PTO committed reversible error in its 35 USC §101 rejection due to a number of legal mistakes, because its §101 rejection has no evidentiary support, and because the Board failed to provide reasoning with sufficient specificity to enable judicial review without resort to speculation.



II. The Board erred by introducing new evidence during oral hearing, by failing to consider its own reference as a whole, by misrepresenting an alleged definition to Appellants, and when the misrepresentation was discovered by Appellants, by failing to provide a comprehensible response/explanation when challenged upon Request for Rehearing.

III. The rejections under 35 USC §§102/103 should be reversed because the PTO never asserted (or provided supporting evidence) that all the elements of the independent claims were disclosed or suggested.

IV. The rejections under 35 USC §§102/103 should be reversed because the Board failed to consider evidence and arguments set forth before it.

V. The rejections under 35 USC §§102/103 should be reversed for lack of substantial evidence, for failing to consider all evidence and references as a whole, for failing to consider plain claim language and the specification when construing claim limitations, and for failing to provide reasoning with sufficient specificity to enable judicial review without resort to speculation.

## **REASONS TO GRANT ORAL ARGUMENT**

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Appellants assert that oral argument should be granted because, as will be discussed below, there are new issues of law that need to be resolved, and because the PTO has demonstrated a pattern of disturbing behavior.

## **BACKGROUND**

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### **I. Description of the Present Application**

The present application describes devices and methods capable of producing and quickly delivering large numbers of computer-derived estimates of residential properties known as “Automated Valuation Model” (“AVM”) estimates (or values).

Circa 2002, Appellants realized that tools capable of aiding small investors in real-estate were missing. Appraisals were too expensive for speculation of large numbers of properties, and AVMs were a new technology available only to a few corporations for limited purposes, or made available by a website that charged a fee (e.g., \$25) for an estimate of a single property. Thus, small investors were thwarted by the limited valuation services made available to the public, as well as

“the high expense of the human element.” See, ¶¶[0015]-[0016] of the present specification (JA1983-84).

To do away with “the high expense of the human element,” Appellants developed their own AVM technology that could be applied to every residential property in a given geographical region, such as a number of counties or entire states – and do so without requiring *direct* human judgement. Thus, they conceived and realized novel computer-based tools that, after initial development, allowed for better-informed investing in real estate with negligible costs. See, ¶¶[0015]-[0016] of the present specification (JA1983-84).

Figure 2 of the present specification (JA2012) is provided below for convenience of discussion.

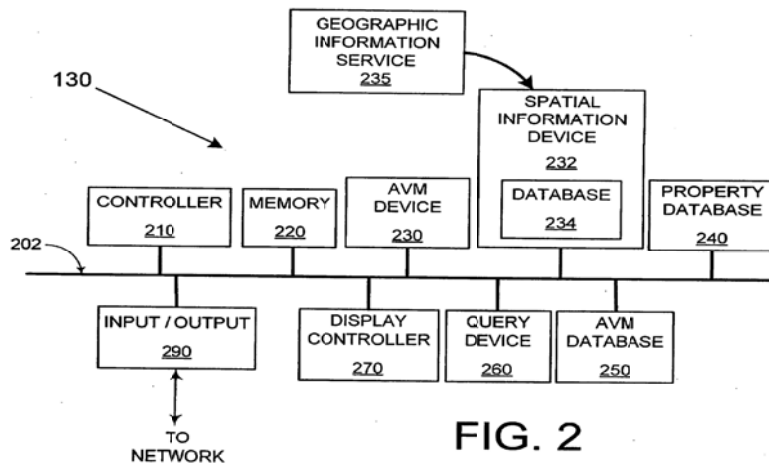


FIG. 2

As shown above, a provider 130 includes a number of computer/electronic-based devices 210-290 including an AVM device 230 with various supporting

databases 234 and 240 used to derive AVM values. Paragraphs [0031]-[0051] (JA1988-93) describe the operations and various embodiments of the provider 130. See also, paragraphs [0094]-[0096](JA2002-03). In each and every embodiment, the provider 130, including the AVM device 230, *always* takes the form of some electronic component (paragraph [0032](JA1988)), computing device (paragraph [0033] (JA1988)), or software/firmware routines residing in a computer memory and operated upon by hardware-based controller (or multiple controllers) (paragraph [0034]). It is these embodiments 210-290 that allow *direct human judgement to be removed* from the valuation process.

In operation, the provider 130 provides a number of AVM services. For example, using the disclosed devices and methods, it is possible to provide AVM values for every residential property in an entire state to any interested user. See, paragraph [0076](JA1999). Additional, the provider 130 can repeatedly preprocess/update the AVM values before a single user ever makes a request for such data, and assure that, regardless of when an AVM value is requested, the AVM value will reflect a current market estimate. Paragraphs [0085](JA2001) et seq.

Florida, the home state of Appellants, is estimated to have about six-million privately-owned residential properties. Prior to Appellants' inventions there was

no available resource that could provide AVM values for each and every such property at any given minute in a year with an assurance that all six-million AVM estimates would reflect a current market estimate.

One advantageous utility disclosed in the present specification (see paragraph [0046](JA1991-92)) is to overcome a problem that the Appellants recognized in web environments. Specifically, when computationally-expensive determinations are necessary (which inherently require computer time), by pre-processing AVM values before a user makes a request for such data, latency problems are resolved since the AVM values don't need to be calculated at the time of the request

Another advantageous utility is that the massive numbers of AVMs allow for a "Differential Valuation Search" ("DVS"), which is described (paragraphs [0027]-[0030](JA1986-88)) as enabling a user to find "properties in a particular region that are offered for sale at a price substantially below their AVM values."

## **II. Comparison To The Primary Reference**

The primary reference cited against the present claims is Sklarz et al. (Pub. No.: US 2002/0087389) entitled "Value your Home." It is directed to a system that enables a user to develop an estimate of a home. Sklarz describes its estimates broadly as "appraisals," (paragraph [0003]) which is unfortunate as the term

“appraisal” is a term of art in the housing industry requiring a professionally trained and licensed individual (an appraiser). Sklarz also refers to its appraisals as “sales price predictions” (Paragraph [0003]), “predicted sales prices” (Paragraph [0003]), and “valuations” (paragraph [0007]). However, Sklarz also states that “sales price predictions” can rely on many different types of methodologies (paragraph [0007]), and so careful attention must be paid when reading Sklarz to determine whether, at any particular paragraph, Sklarz is referring to appraisals in the traditional sense, Sklarz’ special definition of an appraisal, or some other form of valuation.

For the sake of clarity, the term “Sklarz-valuation” will be used in this document to describe estimates developed by Sklarz’ systems and methods; “formal appraisal” will be used for an estimate developed by a licensed appraiser, and “valuation” will be used to describe a market estimation of a residential property developed by any means. Also for the sake of clarity, the term “Automated Valuation Method” (“AVM”), which is also a terms of art, is defined as follows:

“Automated Valuation Model—An automated valuation model (AVM) is a mathematically based computer software program that produces an estimate of market value based on market analysis of location, market conditions, and real estate characteristics from information that was previously and separately collected. The distinguishing feature of an AVM is that it is a market appraisal

produced through mathematical modeling. Credibility of an AVM is dependent on the data used and the skills of the modeler producing the AVM.”<sup>1</sup>

National Mortgage Professional Magazine describes an AVM as “Very fast and economical,” but with the weaknesses of “No human inspection or judgment and less certainty.”<sup>2</sup> National Mortgage Magazine goes on to state that AVMs “use zero human judgment,” but rather “a series of formulas,” which is consistent with the IAAO definition above, as well as *every* embodiment of the present specification.

Returning to Sklarz, paragraph [0051] discloses that VYH (“Value Your Home”) databases are derived from MLS (“Multiple Listing Souyrce”) databases, and that the VYH/MLS databases are updated periodically. The VYH/MLS databases do not contain Sklarz-valuations, but are used to produce Sklarz-valuations. A review of the Examiner’s Answer demonstrates that the PTO makes no assertion to the contrary.

Next, starting at paragraph [0052], Sklarz discloses a series of “information outputs” and “decision tools,” with the decision tools including graphical charts ([paragraph [0053]]) and query pages (paragraphs [0058]-[0094]) that are used to

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<sup>1</sup> Standards on Automated Valuation Models (AVMs), International Association of Assessing Officers (IAAO) (2003), Section 2.1.1 (page 5). Exhibit #7 (JA0315)

<sup>2</sup> <http://nationalmortgageprofessional.com/news18232/appraisals-bpos-and-avms>  
Exhibit #8 (JA0320-21)

produce a variety of human-readable graphs (see, e.g., paragraphs [0126]-[0155]), color-coded maps (see, e.g., paragraphs [0156]-[0170]), price-distribution charts (see, e.g., paragraphs [0171]-[0175]), mortgage-related charts (see, e.g., paragraphs [0176]-[0187]), assorted “technical analysis” charts (see, e.g., paragraphs [0188]-[0200]), and assorted “fundamental analysis” charts (see, e.g., paragraphs [0201]-[0211]).

Sklarz discloses in paragraph [0213] that queries and responses to queries are temporarily cached for a “cache period.” This allows the VYH system to quickly reproduce information should a user repeat a specific query within the cache period without actually conducting another query on the VYH database.

Using the various decision tools and query pages, the Sklarz device allows for two separate “engines” to generate intermediate valuations: a “comparable market analysis engine” and a “trend engine.”

Regardless of the type of engine used, in order to create a Sklarz-valuation, a human enters relevant data using, for example, the input screen shown in Fig. 12. The human then uses the data entered as part of a query to produce a list of comparable properties. *It is these comparable properties that are stored in Sklarz’ cache.* Fig. 14 shows an output example of the resultant query.



Using the screen of Fig. 14, the human user then employs his judgment to select the most appropriate comparables, then hits the “Produce Comparables” button. Paragraph [0226]. It is important to remember that *a human always selects the comparable properties*. The selected comparable properties are then used to produce a single Sklarz-valuation.

Thus, Sklarz is distinctly different from the present claims and specification due to Sklarz’ express reliance on *direct human judgment* and a partially-computer implemented approach.

### **III. Outstanding Rejections**

Claims 133 – 115 and 155 are rejected under 35 USC §101.

Claims 133, 141, 142 and 145 are rejected under 35 USC §102(b) over Sklarz et al. (US 2002/0087389), or in the alternative rejected under 35 USC §103(a) over Sklarz.

Claims 134-140, 143, 144, 146-151 and 155 are rejected under 35 USC §103(a) over Sklarz in view of Florance et al. (US 2004/0030616).

### **IV. Procedural History**

Appellants readily admit that the present case is, for lack of a better word, a “mess.” This was not Appellants’ intention.

Appellants filed appeal with the expectation of resolving the outstanding §§102/103 rejections. After the Appeal Brief was entered, the Examiner filed his Answer with a new grounds of rejection under §101 based on the Supreme Court's *Alice/Mayo* test.

Appellants then expected the Board to reverse the Examiner's rejections based upon established principles of law and lack of supporting evidence.

Unfortunately, the Board declined to address Appellants' arguments and the Examiner's failure to provide supporting evidence. Accordingly, those issues went unresolved.

Further, the Board compounded the number of issues. By way of example, as will be discussed below, during oral arguments the Board cited a new non-dictionary reference to subsidize the Examiner's evidentiary failures, mischaracterized what the reference stated as a whole, did not provide a copy of reference to Appellants during oral hearing, and then refused to provide a coherent response when challenged after Appellants discovered the mischaracterizations. It was also inadvertently discovered that the Board had not read whole sections in Appellants' briefs as, in response to a Request for Rehearing, the Board mistakenly asserted that Appellants did not make certain arguments in their Appeal Brief. This appeal followed.

## V. Summary of Argument

### A. *Outline Of Arguments*

The decisions of the Board should be reversed, or in the alternative remanded, on all issues for: (1) failing to cite any supporting evidence, which necessary fails the substantial evidence test; (2) failing to consider evidence favoring patentability; (3) failing to consider arguments/issues set before it favoring patentability; (4) failing to interpret the plain language of the claims correctly, and for failing to interpret claim terms in light of the specification; (4) for failing to apply controlling law; (5) an abuse of discretion by the Board by citing new evidence during oral hearing, and failing to consider their own reference as a whole; and (6) failing to fully and particularly set out the bases upon which the Board reached its decisions such that appellate review may be had without resorting to speculation.

### B. *New Issues Regarding of Law Regarding Patentability under 35 USC §101 Must Be Resolved*

Appellants' case relates to several issues of patentability that the Supreme Court did not explicitly address in its *Alice Corp.* decision. In particular, Appellants assert that, as with other forms of rejections issued by the USPTO, when performing an analysis under part one of the two-part test outlined in *Alice Corp.*, it is incumbent upon the PTO to: (1) consider claims *as a whole*, (2) not

impute limitations that do not appear in the claims, (3) adhere to established law regarding assertions of specific utility, and (4) provide substantial evidence to support findings of fact.

The evidentiary issue is especially distressing as the PTO has *as a rule* declines to burden examiners and APJs with mundane issues of evidence when determining patentability under §101. See, e.g., *Ex parte Klish*, Appeal 2013-000814 (July 29, 2015); *Ex parte Himmelstoin*, Appeal 2012-012370 (April 24, 2015); Abreu (U.S. Pat. App. No 13/926,424) (final office action dated 8/24/2015).

***C. Fundamental Requirements Regarding Evidence, Claim Construction And Appellate Review Must Be Upheld***

Appellants do not ask this Court to consider new issues to address the outstanding rejections under §§102/103. Appellants merely request that this Court require the PTO to adhere to established rules of evidence, claim construction and appellate review. These issues should have improved at the PTO given some of the striking decisions issued by the Federal Circuit in the last eighteen months. Unfortunately, as will be demonstrated below, the problems have not improved.

## **ARGUMENT**

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### **I. Standard of Review**

The Federal Circuit reviews the Board's legal conclusions *de novo*, *In re Elsner*, 381 F.3d 1125, 1127 (Fed. Cir. 2004), and the Board's factual findings underlying those determinations for substantial evidence, *In re Gartside*, 203 F.3d 1305, 1316 (Fed. Cir. 2000). A finding is supported by substantial evidence if a reasonable mind might accept the evidence to support the finding. *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

A determination of patentability must be based on the entire record by a preponderance of evidence. *In re Oetiker*, 977 F.2d 1443 (Fed. Cir. 1992). Further, a decision on patentability must be made based upon consideration of all the evidence before the examiner, and a decision to make or maintain a rejection in the face of all the evidence must show that it was based on the totality of the evidence. *Id.* Facts established by rebuttal evidence must be evaluated along with the facts on which the conclusion of obviousness was reached, not against the conclusion itself. *In re Eli Lilly & Co.*, 902 F.2d 943 (Fed. Cir. 1990).

Further, mere conclusory statements that implicitly or expressly assert to reflect common knowledge or common sense fail the substantial evidence test. As stated by the Federal Circuit in *K/S HIMPP v. Hear-Wear Technologies*, Appeal

No. 2013-1549 (Fed. Cir. 2014) “[a]lthough a patent examiner may rely on common knowledge to support a rejection, *that is appropriate only in narrow circumstances*” (emphasis added). *Id.* slip op. at p. 8. The Federal Circuit further held:

‘We recognize that the Board has subject matter expertise, but *the Board cannot accept general conclusions about what is “basic knowledge” or “common sense” as a replacement for documentary evidence for core factual findings in a determination of patentability.* To hold otherwise would . . . ultimately “render the process of appellate review for substantial evidence on the record a meaningless exercise.”’(emphasis added) *Id.* (internal citations omitted)

Proceedings of the Board are governed by the Administrative Procedure Act (“APA”), 5 USC §§ 702, 704; *Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998); *Dickinson v. Zurko*, 527 U.S. 150, 154–65 (1999). Under the APA, the Board is obligated not only to come to a sound decision, but to fully and particularly set out the bases upon which it reached that decision. *In re Sang-Su Lee*, 277 F.3d 1338, 1342 (Fed. Cir. 2002); *Gechter v. Davidson*, 116 F.3d 1454, 1457 (Fed. Cir. 1997).

To permit effective appellate review, the Board’s patentability analyses must be both “clearly disclosed and adequately sustained.” *Sec. & Exch. Comm’n v. Chenery Corp.*, 318 U.S. 80, 94 (1943); *see In re Thrift*, 298 F.3d 1357, 1364 (Fed. Cir. 2002) (emphasizing that the Board is required to “document its reasoning on

the record to allow accountability” and to facilitate “effective judicial review”); *Gechter*, 116 F.3d at 1457 (explaining that the Board’s reasoning must be set out with sufficient specificity to enable the Federal Circuit to effectively evaluate a rejection “without resort to speculation”); *Mullins v. Dep’t of Energy*, 50 F.3d 990, 992 (Fed. Cir. 1995) (“It is well established that agencies have a duty to provide reviewing courts with a sufficient explanation for their decisions so that those decisions may be judged against the relevant statutory standards, and that failure to provide such an explanation is grounds for striking down the action.”).

## **II. The §101 Rejection Should Be Reversed Due To A Series Of Legal And Factual Errors**

Before rendering a decision of §101 patentability, it is important to remember that the Supreme Court emphasized the caution with which one should proceed when considering §101 issues: “we tread carefully in construing this exclusionary principle lest it swallow all of patent law.” *Alice Corporation PTY, LTD v. CLS Bank International*, 573 U.S. \_\_\_\_, \_\_\_\_ (slip op. at 6)(2014) (citing *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. \_\_\_\_ (2012)). The Supreme Court was careful to state that “an invention is not rendered ineligible for patent simply because it involves an abstract concept.” *Id.*

Applications of such concepts ‘to a new and useful end’ remain eligible for patent protection. *Id.*

Whether an invention falls within a subject matter eligible for §101 protection is a threshold question. *See In re Comiskey*, 554 F.3d 967, 975 (Fed.Cir 2009). “It is well-established that ‘[t]he first door which must be opened on the difficult path to patentability is §101.’” *Id.* at 973 (quoting *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368, 1372 n.2 (Fed. Cir. 1998)). Only after an invention has satisfied §101 will it be analyzed under the remaining hurdles of the Patent Act, including anticipation under §102 and obvious under §103. *See Bilski II*, 130 S. Ct. at 3225<sup>3</sup>.

Ultimately, the determination of whether an asserted claim is invalid for lack of subject matter patentability under §101 is a question of law. *See Bilski I*, 545 F.3d at 950.<sup>4</sup> While invalidity is a question of law, “determination of this question may require findings of underlying facts specific to the particular subject matter and its mode of claiming.” *Arrhythmia Research Technology, Inc. v. Corazonix Corp.*, 958 F.2d 1053, 1056 (Fed. Cir. 1992).

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<sup>3</sup> *Bilski v. Kappos*, 561 U.S. 593, 130 S.Ct. 3218 (2010)(“Bilski II”)

<sup>4</sup> *Bilski v. Kappos*, 545 F.3d 943 (Fed. Cir. 2008)(“Bilski I”)



As will be shown below, the USPTO's §101 rejections are based not just on erroneous legal standards, but rely on conclusory statements and a failure to give weight to evidence and arguments favoring patentability.

***A. The §101 Rejection Should Be Reversed Because The PTO Failed To Consider The Claims As A Whole Under Part 1 Of The Alice/Mayo Test***

In analyzing a claim, it is important to remember that it is the claims of a patent that “define the scope of a patent grant.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 373 (1996). For this reason, the Supreme Court has explained that claim language, as written, is definitive. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms. *White v. Dunbar*, 119 U.S. 47, 51-52 (1886). Thus, in analyzing any claim for patent-eligibility, one must always consider the claim as a whole. *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29 (1997).

The Supreme Court outlined a two-part test for determining patentability under §101 in the *Alice Corp.* and *Mayo* cases to determine whether a claim is *directed* to an abstract idea. First, (Part 1) it must be determined whether the claim at issue is *directed* towards an abstract idea, and if so (Part 2), whether the

claim's elements, considered both individually and "as an ordered combination," "transform the nature of the claim" into a patent-eligible application. *Alice Corp.* 573 U.S. \_\_\_\_ (slip op. at p. 2).

In following the mandate of the Supreme Court, the Federal Circuit has come to realize that identifying the precise nature of an abstract idea under Part 1 of the *Alice/Mayo* test is not always a straightforward process. *See DDR Holdings v. Hotels.com*, Appeal 2013-1505, slip op. at p. 19, ll. 16-18 (Fed. Cir. 2014).

Appellants asserts that determining the nature of an abstract idea, as well as determining whether or not a claim is directed to an abstract idea, requires considering a claim as a whole.

The Board, however, takes a different position.

Specifically, the Board expressed that the traditional "as a whole" requirement to addressing claims does not apply to part 1 of the *Alice/Mayo* §101 patentability test. (JA0060, lines 1-5). The Examiner and the Board were also comfortable with imputing terms not present in a claim, which in the present circumstances included the term "customer." (JA0038) Compare *McCarty v. Lehigh Valley R.R.*, 160 U.S. 110, 116 (1895)("if we once begin to include elements not mentioned in the claim ... we should never know where to stop").

While the Board decided *after the fact* that this error was harmless because the Examiner used the word “user” and “customer” interchangeably (JA0005-06), Appellants’ observe that the Board used a wrong standard for harmless error. *See Walter Kidde Portable Equipment, Inc. v. Universal Security Instruments, Inc.*, 479 F.3d 1330 (Fed. Cir. 2007) (discussing that whether or not an error was harmless depended on whether the error affects the substantial rights of a party)

Appellants assert that imputing the word “customer” *falsely* implies there is some form of financial transaction required by the claims,<sup>5</sup> which Appellants assert should normally have some impact in the business methods directorate when construing claims and making analyses for rejection. Unfortunately, the Board’s declaration of harmless error cannot even be objectively analyzed because the conclusory nature of the PTO’s rejections deprives Appellants any basis upon which to address the issue.

However, for the purpose of the following arguments, Appellants will defer – for convenience only – to the PTO’s erroneous construction while asserting that, despite which construction is used, the PTO’s §101 rejections fail for legal error and lack of substantial evidence.

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<sup>5</sup> See, e.g., Black’s Law Dictionary (6th Ed.) at p. 386 (1994).

***B. The §101 Rejection Should Be Reversed Because The PTO Misconstrues What Is Meant By “Routine” and “Conventional” Under Part 2 Of the Alice Test***

On page 4 of the Examiner’s Answer (JA0139), the Examiner shows a lack of understanding of what the Supreme Court meant when it used the term “conventional.” To wit, the Examiner stated in part:

“All computers and computing devices are capable of performing math equations and are all capable of providing the result to a user. This can be the act of mere data display on a computer display. Both claimed steps are directed at computing functions that are routine and conventional *in the computing arts* (performing math operations and providing data), and that are capable of being by any generic computing device.” (emphasis added)

Unfortunately, the Examiner, as well as the Board, misses the point. A claimed limitation is not “routine” and “conventional” merely because a computer can perform the limitation, or because a limitation might involve math. Were this true, it would mean that every limitation implemented on a computer would be conventional and thus lacking the ability to transform an abstract idea into a patentable invention. Every basic computer instruction is in a sense “routine and conventional” in the computer arts. Computers are limited to basic functions, such as adding, subtracting, multiplying, comparing, branching and accessing data. This is true for all digital circuitry.

The Supreme Court *never* stated that “routine” and “conventional” were concepts to be measured against the computer arts. To the contrary, in *Mayo v. Prometheus* the Supreme Court adjudged limitations as routine and conventional *with respect to the relevant technology/industry*. Given that no computer was required or recited in *Mayo*, the PTO’s position is inconsistent with the Court’s holdings.

Additionally, since *Alice Corp.*, the Federal Circuit rejected the notion that claim limitations are conventional merely because they are implemented on a computer. See, *DDR Holdings, LLC, v. Hotels.com et al*, Appeal 2013-1505 (Fed. Cir. 2014) (holding that a claimed solution that included completely computer-implemented limitations transformed an abstract idea into a patentable invention).

It is clear that the PTO uses an erroneous legal standard in their *Alice/Mayo* §101 rejections.

Appellants assert that a determination as to whether or not a limitation (or combination of limitations) is routine and conventional under Part 2 of *Alice/Mayo* requires an analysis central to whatever abstract idea was identified under Part 1 of *Alice/Mayo* and not with respect to computers in general. What the PTO fails to comprehend is that under *Alice/Mayo*, a limitation’s nature as

being abstract or not abstract has nothing to do with whether the limitation can be performed on a computer.

***C. The §101 Rejection Should Be Reversed Because There Is No Evidence That Any Claim Is Directed To A Fundamental Business Practice Under Part 1 of the Alice/Mayo Test***

The Examiner's assertion that the claims are directed to a fundamental business practice is encompassed in fifty-nine (59) words.

“The providing of AVM values to customers, including updated AVM values, is something that is a fundamental economic practice that has long been prevalent in our system of commerce such as in the real estate industry. Providing AVMs to customers, including updated AVMs is a fundamental aspect to the real estate industry that has been known for many years” (JA0138)

The Board's holding regarding part 1 of the *Alice/Mayo* test is just as conclusory, and is provided below in forty-four (44) words:

“Applying the first step of the Alice analysis, we agree with the Examiner that the claims are directed to the abstract idea of providing AVMs, a fundamental real estate practice, which was known in the real estate practice at the time of the invention.” (JA0040)

Even assuming that the PTO is correct in its theory that every claim of the present application is directed to merely providing AVM values to customers (which Appellants contest), *the Board cited no evidence to support the position that providing AVM values to customers is a fundamental economic practice.* The PTO's assertion is bereft of supporting evidence, conclusory and false.

The present circumstances are in contrast to *Alice Corp.*, where judicially-reviewable evidence was provided to support the notion that hedging was both long-known and sufficiently fundamental that, *inter alia*, it was described in textbooks in 1896.

The Supreme Court *never* stated that every business practice is “fundamental,” and to merely assume that providing AVM values is a fundamental business practice without evidence is to eviscerate both Supreme Court precedent as well as Federal Circuit precedent in *K/S HIMPP*.

As with *K/S HIMPP*, the PTO was required in the present case to “point to some concrete evidence in the record” to support their conclusion. *K/S HIMPP*, slip op. at 6.

This, however, was never done.

While Appellants are aware that *K/S HIMPP* involved an obviousness issue, the underlying evidentiary requirement is the same. An assumption of common sense or basic knowledge is not evidence for a core factual finding. See also Manual of Patent Examining Procedures (MPEP) §2144.03 (“It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known.”).

***D. The §101 Rejection Should Be Reversed Because There Is No Evidence That A Single Limitation Of A Single Claim Is “Conventional” Under Part 2 Of the Alice/Mayo Test***

Assuming that providing AVM values is a “building block” of human ingenuity (which Appellants contest), Appellants have used this building block as but one aspect of their claims to produce a patent-eligible invention. The instant claims do not grant an improper monopoly over the idea of providing AVMs to customers, and the Examiner and the Board made no assertion to the contrary. *It was undisputed before the Board that the claims do not amount to a monopoly of a basic building block of human ingenuity.*

To illustrate Appellants’ position, claim 139 is rewritten in independent form below.

139. A system for distributing real-estate related information, comprising:

one or more tangible computer-readable mediums that includes one or more databases with entries for a plurality of residential properties with each entry including at least: a first field containing an address of a residential property, and a second field containing an automatic valuation method (AVM) value reflecting a computer-generated value of the residential property identified by the address of the first field; and

one or more computers configured to:

update each of the AVM values using residential property information so as to enable the one or more databases so as to repeatedly reflect market changes in the AVM values of the residential properties; and



distribute the AVM values to any one of a plurality of users over a publically-accessible network,

wherein:

the one or more computer-readable mediums further includes geographic information for each residential property,

the one or more computers are further configured to provide display information to a plurality of remote terminals to enable each of the remote terminals to generate a map-like display for a respective geographic region, each map-like display containing at least: (1) respective icons for each of a plurality of residential properties within the respective geographic region, the icons being spatially distributed relative to one another based on the geographic information, and (2) at least one AVM value for one of the plurality of residential properties,

each geographic region is defined based on information received from a user, and

each map-like display is configured such that a user selection of a first property in the map-like display displays a window containing at least an AVM value for the first property.

There is nothing in evidence to suggest that the above claim is so abstract that it contains only limitations necessary to practice AVM technology, only limitations that are routine with respect to providing AVM values, or only limitations that may be deemed so conventional that granting this claim would stymie innovation or preclude a single individual from providing AVM values to customers.

Claim 139, as with all of the present claims, include limitations that neither the Examiner nor the Board described as having a “high level of generality” under the *Alice/Mayo* test.

Further, independent claims 133 and 145 contain a limitation that is conceptually similar to a limitation at issue in *Diamond v. Diehr*.

Independent claim 133 recites, *inter alia*, the limitation “repeatedly update each of the AVM values using residential property information so as to enable the one or more databases so as to repeatedly reflect market changes in the AVM values of the residential properties.” Independent claim 145 recites a similar limitation.

Compare, *Mayo* 566 U.S. \_\_\_\_ slip op. at p. 12, where the Supreme Court observed that the limitation in *Diamond v. Diehr* of “constantly re-calculating the appropriate cure time through the use of the formula and a digital computer” was not purely conventional and served to transform the underlying process into “an inventive application.”)

As the Supreme Court observed about *Diamond v. Diehr*, ‘the patentees did not “seek to pre-empt the use of [the] equation,” but sought “only to foreclose from others the use of that equation in conjunction with all the other steps in their claimed process.” *Mayo* 566 U.S. \_\_\_\_ slip op. at p. 12. The same is true in the

present circumstances. Appellants do not seek to preclude the use of AVM technology, and there is no evidence, *or even an assertion*, that the grant of a single claim would pre-empt the use of AVM technology except in the narrow and specific requirements of the present claims.

***E. The §101 Rejection Should Be Reversed Because The Board Improperly Dismissed Appellants’ Statements Of Specific Utility That Support §101 Eligibility***

Under the second prong of the *Alice/Mayo* analysis, the Supreme Court identified non-limiting, non-exclusive criteria of indicating patentability under 35 U.S.C. §101, such as when something “significantly more” is recited in a claim with an abstract idea including: (1) improvements to another technology or technical field; (2) improvements to the functioning of the computer itself; and (3) meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment. *Alice*, 573 U.S. at \_\_\_ (slip op., at 13). The present claims represent such improvements.

In support that the present claims represent a technical improvement in the field of real-estate investment, Appellants cited the ability to perform Differential Value Searches (DVSs) using a database of AVM values as compared to offer for sale values – a feature that can be provided at any given minute in any day for large geographic regions and in a time frame below human perception. See, e.g.,

Reply Br. at p. 16, last paragraph. This utility is supported by the instant specification in paragraphs [0027]-[0030](JA1986-88).

Appellants also cited an improvement in the speed of a computer by reducing online latency in a time from months or minutes to mere milliseconds by preprocessing AVM values. See Reply Br. At p. 16, last paragraph. This utility is supported by the instant specification nearly throughout, with specific advantage described in paragraph [0046](JA1991-92).

Instead of addressing these apparent advantages with any requisite detail, the Board responded (JA0040):

“The evidence in the record does not demonstrate that Appellants' purported features of decreased latency times, benefits for larger areas, and identification of prices below market value as compared to other real estate AVM systems are due to inventive concepts that are significantly more than what is achieved by implementing an abstract concept to operate faster and more efficiently on a computer and network.”

Questions arise. What evidence did the Board consider? What standard of review did the Board use? What other “real estate AVM systems” (plural) are referred to? The Board does not say. How do Appellants dispute unidentified evidence? How does the Federal Circuit even address this statement given the Board's failure to set forth “specific findings of fact and conclusions of law adequate to form a basis for appellate review.” *Gechter*, 116 F.3d at 1460.

While the Board appears to admit that Appellants' methods and systems work better than other unidentified valuation systems, the Board also appears to disparage Appellants' achievements as not "significantly more" than some nebulous "abstract concept to operate faster and more efficiently on a computer and network."

Since when is such a comparison the legal standard upon which inventions are measured?

Appellants' innovations are real-world solutions. They are not some grandiose concept expressed in the abstract.

It is not disputed that preprocessing data before it is requested eliminates the requirement to process such data at the time such data is requested. That's a specific solution to latency issues. Further, the Board's statement above fails to address DVSS *per se* as DVSS are not strictly dependent on operating faster or more efficiently.

Appellants' asserted benefits discussed above are issues of specific utility and, while a patent application is before the PTO, the rules of utility under §101 are governed by the MPEP. The MPEP §2107(II) ("Examination Guidelines for the Utility Requirement") states in part:

*"Office personnel are reminded that they must treat as true a statement of fact made by an applicant in relation to an asserted*

*utility*, unless countervailing evidence can be provided that shows that one of ordinary skill in the art would have a legitimate basis to doubt the credibility of such a statement.” (emphasis added)

See also, MPEP §2107.02(IV) (“[T]he PTO must do more than merely question operability - it must set forth factual reasons which would lead one skilled in the art to question the objective truth of the statement of operability.” (quoting *In re Gaubert*, 524 F.2d 1222, 1224 (CCPA 1975))).

The Board *never* provided argument or evidence to contradict Appellants’ statements of utility.

Lacking identifiable evidence or reasoned argument, the Board’s oversight constitutes reversible error.

### **III. The PTO’s Rejections Should Be Vacated Or Reversed Because The Board Failed To Consider Appellants’ Arguments And Evidence**

“In reviewing the examiner’s decision on appeal, the Board must necessarily weigh all of the evidence and argument.” *In re Oetiker*, 977 F.2d at 1445. As will be explained below in greater detail, Appellants timely made arguments and presented evidence to the Board explaining how it is impossible for a cache to be a database. Appellants arguments included, for example, that a database is an abstract construct existing at a computer code level while a cache is a physical memory existing at the machine level of a computer. Appellants’ arguments can

be found in their Appeal Brief in a section entitled “A Cache Is Not A Computer-Searchable Database.” (JA0357)

The impossibility of the Board’s holding to the contrary led Appellants to request review in a May 26, 2015 Request for Rehearing (cite).

To Appellants’ dismay, the Board responded by refusing to consider Appellants’ arguments, and lamented that Appellants should have provided this argument in their Appeal Brief. See, JA0006. The problem with the Board’s lamentations is that *Appellants did provide the argument in their Appeal Brief*.

Thus, it is clear that the Board failed to read at least one whole section while merely relying on the Examiner’s conclusory and erroneous statements.

The Board also falsely asserted (JA0007) that Appellants failed to timely raise the issue that the Examiner failed to assert that all the limitations of claims 133 and 145 were disclosed.

Still further, the Board further refused to address the absence of evidentiary support for all the Examiner’s motivations despite Appellants’ challenges on the issue. See, Appellants’ Brief at JA0367, where Appellants assert: “[e]very single assertion about why one of ordinary skill in the art would be motivated to make the changes to Sklarz as suggested by the examiner are completely unsupported by the applied art of record.” In light of such a strong assertion, and in light of the fact

that the Board never addressed the need for evidence, it is fair to assume the Board either didn't read Appellants' brief or didn't care about evidence.

Given the Board's oversights, Appellants respectfully assert that all three APJ's tasked with reviewing the issues before them failed to read multiple portions of Appellants' Briefs.

#### **IV. The PTO's 102/103 Rejections Should Be Reversed Because The PTO Failed To Assert, Much Less Provide Evidence, That All Claim Elements Were Disclosed Or Suggested.**

A reference is anticipatory when the reference discloses each and every element, explicitly or inherently, of a claimed invention. *See Eli Lilly & Co. v. Zenith Goldline Pharms., Inc.*, 471 F.3d 1369, 1375 (Fed. Cir. 2006). Similarly, "obviousness requires a suggestion of all limitations in a claim." *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003). An examiner has the initial burden to establish a *prima facie* case of anticipation and obviousness, and only if that burden is met does the burden to rebut shift to an applicant. *See, e.g., In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993). "If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 977 F.2d. at 1445.

On page 13 of their May 21, 2015 decision, the Board states: "Based on the Examiner's findings, we sustain the anticipation rejection of representative claim



133,” without realizing, *inter alia*, that the Examiner never bothered to assert that Sklarz’ cache may possibly contain a plurality of valuations. Accordingly, a *prima facie* case of anticipation or obviousness was never established.

When challenged upon Request for Rehearing on the issue, the Board asserted in their July 21, 2015, decision (p. 6 (JA0007)) that Appellants did not timely raise the issue.

However, this is untrue. See Appellants’ Brief (JA0372), which states: ‘The examiner does not contest “a plurality” as recited in claim 133 even as he fails to show that Sklarz stores a plurality of its valuations in a database.’

The Examiner never addressed this shortcoming in his Answer. The Board did not address it in either their May or July decisions.

**V. The Rejections Should Be Reversed Because The Board Improperly Entered Evidence During Oral Hearing, Failed To Consider Their Own Reference As A Whole, And Upon Request For Rehearing, Refused To Address Appellants’ Arguments With Requisite Clarity**

Appellants are aware that the Board has a right to consult dictionaries. This right, however, does not allow the Board to cite definitions that conflict with Appellants’ specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1322–23 (Fed. Cir. 2005) (en banc) (“[J]udges are free to consult dictionaries . . . so long as the dictionary definition does not contradict any definition found in or ascertained by a

reading of the patent documents.”). Further, the right to consult dictionaries does not allow the Board to consult evidence not of record.

Appellants timely asserted that the Examiner failed to cite support for his definition that would enable Sklarz valuations to be interpreted as AVM values. See, JA0354 (lines 19-22); JA0108 (p. 18, 2<sup>nd</sup> paragraph).

However, during the April 28, 2015, oral hearing, APJ Fetting, in an attempt to find a definition that supported the Examiner’s definition of an AVM (“Automated Valuation Method”), cited an obscure website called Investopedia.com stating: “When I looked up automated valuation method, it’s service that use mathematical modeling to value properties. That’s the definition I found.” Transc. at p. 11 (JA0064) at lines. 6-8. Judge Fetting continued: “This is Investopedia. So *anything* that uses mathematical modeling to value properties is within the scope of an AVM” (emphasis added), then asserted “[s]o we have competing dictionary definitions, then, okay.” Transc. at p. 11 (JA0064) at lines. 10-21.

Judge Fetting’s knowledge of Investopedia and the nature of the definition was non-existent. When asked about the date of the definition, for example, Judge Fetting’s reply was simply “I looked it up yesterday.” Transc. at p. 19. Accordingly, there arises the issue that Judge Fetting’s definition may not reflect

what was acceptable at the time of the invention. *Phillips*, 415 at 1313 (stating that the “ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art at the time of the invention”).

Further, during oral hearing Judge Fetting did not supply a copy of the relevant webpage to Appellants’ representative for inspection. When asked to repeat his definition, Judge Fetting obliged in part – but again refused to provide the “definition” in its entirety. See, Transc., p. 18, ll. 23-26.

It is to be appreciated that the description proffered by Judge Fetting is so broad that it describes a process whereby no computer is necessary – essentially removing the “Automated” from “Automated Valuation Method.” This description conflicts with Appellants’ specification, which describes methods and systems that provide AVM values using only computers and no direct human judgment. Thus, Judge Fetting’s “definition” fails to comply with the requirements of *Phillips*, 415 F.3d at 1322–23.

The entirety of the Investopedia.com page is found in Appellants’ Supplemental Request for Rehearing (JA0017) and reads as follows:

**“DEFINITION of 'Automated Valuation Model - AVM**

A service that uses mathematical modeling to value properties. The majority of automated valuation models (AVMs) compare the values of similar properties at the same point in time. Many appraisers, and even Wall Street, use this type of model to value residential properties.

While these models are quick and cheap, they do not factor in the condition of the property to determine its value.

### **INVESTOPEDIA EXPLAINS 'Automated Valuation Model - AVM**

AVM reports are driven by technology and can be obtained in seconds by lenders and agents. They usually contain both a hedonic model and a repeat sales index, which are both weighed and analyzed in order to generate the price estimate. AVMs usually include the tax assessor's value, all pertinent information on the property in question, such as its sales history, and an analysis of the sales of like-kind properties.”

Appellants assert that the introduction of the Investopedia webpage *per se* is inappropriate, as well as an abuse of discretion, because *Investopedia is not a dictionary* (or technical treatise) despite *ipse dixit* assertions by Investopedia to the contrary. In fact, the web page at issue appears to be a derivation of the equivalent Wikipedia.com page, which is also appended Appellants Supplemental Request for Rehearing (JA0021). Compare the Investopedia description to the first two paragraphs of the Wikipedia page. The similarity is such as to at least give rise to a substantial possibility that Investopedia may have derived the entirety of its description of AVMs without proper attribution to Wikipedia. *Compare Campbell v. Sec'y of Heath & Human Servs.*, 69 Fed. Cl. 775, 781 (Ct.Cl. 2006) (dismissing a definition taken from the “Dictionary of Neurology,” as lacking credibility given its derivation from Wikipedia)

Even if considered as an admissible dictionary, the Investopedia *as a whole* does not support Judge Fetting's definition, which is based on a *partial reading* of the document.

As shown above, Investopedia states that AVM reports "can be obtained in seconds." A human, however, could not possibly provide an AVM in such time, especially if factoring in "the tax assessor's value, all pertinent information on the property in question, such as its sales history, and an analysis of the sales of like-kind properties."

Investopedia further states that "AVMs usually contain both a hedonic model and a repeat sales index," which is not a description harmonious to the human condition.

Respectfully, the Board's reliance on a *partial description* from an internet source having no *bona fides* as a dictionary constitutes reversible error, especially in light of the fact that the Investopedia page *as a whole* supports Appellants' position.

Upon discovery of the Board's misrepresentations, Appellants raised the issue in a supplemental Request for Rehearing. The Board, unfortunately, refused to comment of the appropriateness of using the Investopedia reference or its failure to consider the document as a whole. The Board's response is so obtuse that

Appellants' Representative declares that neither he nor a number of other attorneys consulted on the issue can determine what was meant with any certainty.

The entirety of the relevant text is provided below:

“In the Supplemental Request, the Appellants contend that the panel improperly introduced evidence at the oral hearing, and then did not consider the evidence as a whole, therefore, the anticipation and obviousness rejections should be reversed. The decision of the Board is “based exclusively on the written record in the Office,” and no other references were relied upon in rendering the panel’s decision. 37 C.F.R. §1.2; *see also, In re Chaddix* (sic: *Chiddix*) 209 USPQ 78 (Comm’r Pat 1980)” (JA0008)

While the Board stated “no other references were relied upon in rendering the panel’s decision,” there is no indication of what “other references” refers to, or whether the Board conceded that their Investopedia reference was not a dictionary. The Board could have stated that they did not rely on the Investopedia reference, but without Judge Fetting’s *partial reading* of the Investopedia reference there is *nothing* to support the PTO’s erroneous construction of the term “AVM.” The entire reason to bring in the Investopedia reference, after all, was to provide a dictionary definition in support for the Examiner’s rejections, and the transcript shows that Judge Fetting argued passionately during oral hearing in support of his citation of the Investopedia reference.

More to the point, dictionary definitions are not considered “evidence” and thus may be consulted by the Board. See MPEP §1204.04 “Official Record on Appeal.” This leaves Appellants wondering why *Chiddix* was recited in an issue involving an alleged dictionary definition, and why the Board refused to consider their own reference as a whole. The Board’s language upon rehearing defies judicial review because it lacks sufficient clarity to guess what the Board meant without resorting to speculation.

#### **VI. The PTO’s Rejections Should Be Reversed Because The Examiner And The Board Failed To Consider All Evidence**

“In reviewing the examiner's decision on appeal, the Board must necessarily weigh all of the evidence and argument.” *In re Oetiker*, 977 F.2d at 1445. Appellants assert that the Examiner did not consider the following evidence:

1. The present specification as a whole, which shows in every embodiment that AVM values are completely computer-generated (see, paragraphs [0018](JA1984) et seq.), and that Appellants’ invention was designed to circumvent “the high expense of the human element” (paragraphs [0016]-[0017](JA1983-84)).

2. The Sklarz reference as a whole, including portions that teach away from Sklarz' valuations being AVM values, such as paragraphs [251] and [253]-[0256].<sup>6</sup>

3. An article from National Mortgage Professional Magazine dated June 18, 2009, entitled "Appraisals, BPOs and AVMs," which the Examiner never once mentions in his findings in his June 12, 2014, rejection, and for which the only mention in his Answer (page 7(JA0142), last paragraph) is a comment ("it is not clear what that definition would be") reflecting his confusion of the article, rather than a comment addressing what the magazine article expressly states.

4. Portions of a §1.132 Declaration (filed April 8, 2013) by expert witness Lawrence Hixson, including a statement by Mr. Hixson that there must be evidence to support the Examiner's conclusory statements regarding the Examiner's stated motivation to modify the Sklarz reference. The Examiner further stated in his June 12, 2014, non-final Office Action (pages 20 (JA0524) et seq.):

"the content of the declaration appears to be nothing *but the opinion of the declarant*, and whose opinion seems to mirror arguments already advanced by the applicant and rebutted by the examiner.

. . .

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<sup>6</sup> Appellants tried *ad nauseam* to get the Examiner to address these paragraphs, and made this position clear to the Board. See, e.g., ReplyBr at p. 19 (JA0109).



With respect to arguing the database and how a cache cannot be a database, the comments are noted but are not persuasive. The argument that a cache is not a database *has already been addressed by the examiner* and the declarant is simply repeating the same overall argument that has been already addressed at length, and which constitutes the opinion of the declarant.” (emphasis added)<sup>7</sup>

The Board failed to comment on any of the Examiner’s evidentiary failures, and so in light of Appellants’ timely protestations on the issue it is fair to assume the Board adopted the Examiner’s positions through its silence.

Additionally, as discussed above, the Board failed to consider their asserted “definition” from Investopedia *as a whole*.

The Board further failed to consider the Sklarz reference *as a whole* in their interpretation of paragraph [0253].

Paragraph [0253] states in part: “After a year of use of the trend engine to predict sales prices, the trend engine has proven to be significantly more accurate than comparable market analysis, and with existing AVMs, when predicted and closed sales prices are compared.”

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<sup>7</sup> While the Examiner attempted in his Answer (p. 18 (JA0153), ll. 5-6) to revise his position stating “the content of the declaration has been fully considered,” the Examiner’s after-the-fact change in position is irreconcilable with his initial statement and does not refute Appellants’ timely assertion that the Examiner failed to give weight to Mr. Hixson’s statements.

The plain language of this passage *in isolation* indicates that the inventors of the Sklarz' device considered their "trend engine" superior to both comparable market analysis and existing AVMs.

The Board, however, turned this statement on its head stating (page 12(JA0047), ll. 9-11 of the May 21, 2015, decision) "a fair reading of the reference is that it promotes the use of its improved trending techniques to generate more accurate AVMs."

Appellants assert that, even read in isolation, the Board's determination is unreasonable and erroneous.

Appellants assert that the Board did not consider the preceding paragraphs when making their pronouncements. Read in context of the preceding paragraphs, which there is no evidence that Board did, the Board's interpretation is indisputably erroneous.

Sklarz never discloses that its trend engine produces AVM values, and paragraphs [00250] et seq. discuss AVMs as a distinctly different approach to estimating properties than Sklarz' trend engine.

Appellants assert that the only support for the idea that Sklarz' trend engine "promotes the use of its improved trending techniques to generate more accurate AVMs" is had by circular logic and a disregard of the preceding text. The Board's

flawed interpretation regarding paragraph [0253] has no support outside its own misreading of a single sentence of paragraph [0253].

Because the Board failed to read the relevant passages of Sklarz as a whole, the Board's conclusions are erroneous and merit no deference, and because Sklarz differentiates its trend engine from AVMs, the §§102/103 rejections should be reversed.

## **VII. The §103 Rejection Should Be Reversed Because Every One Of The Examiner's Proffered Motivations Lack Substantial Evidence**

**Claims 133/145:** In support for his obviousness rejections, each and every one of the Examiner's proffered motivations to modify the Sklarz reference is without evidentiary support. For example, for claim 133 (and similarly claim 145), the Examiner stated in his June 12, 2014, Office Action (page 9 (JA00513)):

*“In the alternative . . . it would have been obvious . . . to store AVM values and periodically update the stored AVM values so that they would reflect current market conditions. One of ordinary skill in the art knows that as time goes on market conditions can change with respect to real estate prices. One of ordinary skill in the art who is operating the system of Sklarz is in the business of providing AVM values to their customers. To provide for periodic updating of AVM values and the storing of those values in a data entry associated with the property address, would have been obvious to one of ordinary skill in the art.”* (emphasis added)

The Examiner's cited motivation above is not one of technical advantage, but one of business (“Sklarz is in the business of providing AVM values”). Even

assuming that one of ordinary skill knows that housing values change over time, the Examiner's particular assertion that "it would have been obvious . . . *to store AVM values and periodically update the stored AVM values,*" is conclusory and without evidentiary support. There is no evidence that one of ordinary skill would have been motivated to update and store a single valuation merely for the sake of updating and storing it. More to the point, there is no motivation (or even an assertion) that one of ordinary skill in the art would continually update a plurality of valuations and place them in a common database, or in the present case Sklarz' cache memory.

There must be some plausible business reason to justify the time and expense of updating and storing a plurality of valuations according to a specific format beyond some unknown "just because" rationale.

The Examiner's flawed assertion is made further evident by Appellants' Expert witness, who provided by way of his declaration that the Examiner's suggested changes to Sklarz would completely change Sklarz' business model (p. 5, ll. 7-9), would cost into the additional millions of dollars to make and support the changes (p. 7, ll. 3-5), and would be unacceptable without some form of financial analysis/study that the changes would be profitable (p. 7, ll. 10-13). Businesses are, after all, in business to make money. *Compare In re Ratti*, 270

F.2d 810, 813 (CCPA 1959) (holding a suggested change to a primary reference unobvious given the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principles under which the [the primary reference] was designed to operate.”).

A review of the Board’s May 20, 2015, decision reveals a disturbing pattern where the Board: (1) repeatedly referred to the Examiner’s conclusions, rather than to actual evidence; and (2) affirmed the Examiner’s conclusions without analysis or citation to evidence, and without addressing all issues necessary to resolve the underlying rejections. Take, for example, the following excerpt from page 9 of the Board’s decision (JA0044):

**‘Motivation to Modify Sklarz.** Appellants asserted that there is no motivation to modify Sklarz as the Examiner suggests, because there is no financial motivation to make the modifications to Sklarz that Examiner suggests, where the modifications would be prohibitively expensive to make and “unjustifiable without some indicia that the suggested changes would be profitable.” (App. Br.; Hixson Decl. 6-8). The Examiner responded that there is no requirement that the Examiner should develop financial evidence on the modifications to support an obviousness determination (Ans. 30).’ (emphasis in original)

As an initial issue, the Board cited no legal standards – not even for an evidentiary standard – upon which they based their decision.

Appellants asserted that the Examiner's suggested changes are prohibitively expensive and unjustifiable without some indicia that the suggested changes would be profitable. Appellants also asserted that: (1) Sklarz contains no disclosed or suggested reason to periodically update valuations, (2) that there is no suggestion to modify from common knowledge or from knowledge of one of ordinary skill in the art, and (3) that the Examiner's claim of motivation is one of market demand, not technical superiority or innovation, and that the Examiner made no assertion and provided no evidence that there is the market demand to justify his claims of obviousness. (AppealBr pp. 31-32 (JA0365-66)). Appellants further asserted that the Examiner's modifications would also impermissibly change Sklarz' principle of operation. (AppealBr at p. 33 (JA0367)).

To Appellants' detriment, the Board failed to address a single one of these issues.

Appellants' expert also declared that no reasonable cache period (i.e., the time data remains in a cache before it is flushed) would exceed an hour. (Decl. pp. 5-6 (JA0232-33)) Appellants' expert has provided the only evidence on a reasonable cache period, and the Examiner has refused to opine on the issue. Once the cache period expires, there cannot be an update in the cache as the original data

is non-existent. Why would one of ordinary skill in the art choose to update a housing value minutes old? The Examiner does not say.

Rather than address issues of evidence, applicable legal standards, or engage in as many as two words of analysis for any of the issues mentioned above, the Board merely affirmed the Examiner. Appellants are left guessing as to how the Board's final conclusion was reached. This is not an exception, but a pervasive pattern in the instant case. The phrase "the Examiner found," for example, appears nineteen (19) times in the Board's decision in lieu of actual discussion of relevant law and evidence. The Examiner's "findings" are not a substitute for evidence, and despite the Examiner's proclamation that he is under no obligation to produce evidence to support an obviousness determination, relatively recent case law provides otherwise. *K/S HIMPP*.

#### **VIII. The PTO's Rejections Should Be Reversed Because The Examiner And The Board Misconstrued Claim Terms**

The Federal Circuit reviews the Board's conclusions of law *de novo* and its findings of fact for substantial evidence. *Microsoft Corp. v. Proxyconn*, Appeal 2014-1542 (Fed. Cir. 2015). Pursuant to the Supreme Court's holding in *Teva Pharmaceuticals U.S.A., Inc. v. Sandoz, Inc.*, \_\_\_\_ U.S. \_\_\_\_ (2015), the Federal Circuit now reviews the Board's ultimate claim constructions *de novo* and its

underlying factual determinations involving extrinsic evidence for substantial evidence. *Proxyconn*, slip op. at p. 6.

However, in circumstances where an intrinsic record fully determines the proper construction, the Federal Circuit reviews the Board's claim constructions *de novo*, no deference is given to the Board's findings, and extrinsic evidence is given no consideration. *Id.*

The Board may not construe claims so broadly that its constructions are *unreasonable* under general claim construction principles. "The protocol of giving claims their broadest reasonable interpretation . . . does not include giving claims a legally incorrect interpretation." *In re Skvorecz*, 580 F.3d 1262, 1267 (Fed. Cir. 2009); *see also In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010) ("The broadest construction rubric coupled with the term 'comprising' does not give the PTO an unfettered license to interpret claims to embrace anything remotely related to the claimed invention."). Rather, "claims should always be read in light of the specification and teachings in the underlying patent." *Suitco*, 603 F.3d at 1260. Even under the broadest reasonable interpretation, the Board's construction "cannot be divorced from the specification and the record evidence." *In re NTP, Inc.*, 654 F.3d 1279, 1288 (Fed. Cir. 2011). A construction that is



“unreasonably broad” and which does not “reasonably reflect the plain language and disclosure” will not pass muster. *Suitco*, 603 F.3d at 1260.

***A. As With The Federal Circuit’s Holding in Microsoft v. Proxyconn, The Intrinsic Record Defines The Scope Of The Claims To Favor Appellants’ Construction***

As discussed above, Appellants have asserted that their construction requires a computer-based system that removes direct human judgment from the valuation process.

Claim 133 is reproduced below for convenience.

“133. A system for distributing real-estate related information, comprising:

one or more tangible computer-readable mediums that includes one or more computer-searchable databases with entries for a plurality of residential properties with each entry including at least: a first field containing an address of a residential property, and *a second field containing an automatic valuation method (AVM) value reflecting a computer-generated value* of the residential property identified by the address of the first field; and

*one or more computers configured to:*

*repeatedly update each of the AVM values using residential property information so as to enable the one or more databases so as to repeatedly reflect market changes in the AVM values of the residential properties; and*

*distribute the AVM values to any one of a plurality of users over a publically-accessible network.” (emphasis added)*

At issue in the present case is whether an AVM value must be completely computer generated with no direct human judgment involved as Appellants assert, or whether an AVM value can be partially computer generated while using human judgment as the PTO proclaims.

Appellants assert that the claim language definitively represents that AVM values are completely computer generated with no recitation of any form of direct human involvement. There is no language in any claim that gives the PTO “an unfettered license” to interpret “one or more computers” to “anything that uses mathematical modeling.” See, JA0064 at lines 10-11.

The specification is also perfectly consistent with Appellants’ claim construction.

While the term “AVM” is not expressly defined in the present specification, the Federal Circuit has recently held that it is not necessary for a claim term to be expressly defined, or even used, in a specification to be ascertained from the intrinsic record. *Kaneka Corp. v. Xiamen Kingdomway Co.*, Appeal 2014-1373, slip. op. at p. 8. (Fed. Cir. 2015).

Regarding AVMs, in each and every embodiment of the present specification, it is a machine (“AVM device”) that is *always* embodied as some form of computer or digital processing circuitry. See, ¶¶[0021](JA1985), [0032]-

[0034](JA1988) and [0094]-[0096](JA2002-03). While the PTO observes (See, e.g., JA0046, JA0147-48, JA0529) that paragraph [0036](JA1989) of the present specification states that the algorithms incorporated within the AVM device (i.e., a combination of heuristic and statistical technologies) can vary from embodiment to embodiment, to justify their definition, it is absurd to assume that a human could possibly be incorporated into a machine as a replacement for an algorithm. *Algorithms, after all, are abstract concepts capable of being embedded into digital processing machinery while humans are not.*

Appellants also refer to paragraph [0015], which states that AVM “is a computer-based technology,” paragraph [0016], which laments the “high expense of the human element” of other valuation approaches, and paragraph [0017], which states that Appellants invented a technology able to perform “massive numbers of AVM valuations at negligible costs.” (JA1983-84)

While Appellants’ claim construction is perfectly consistent with *every* embodiment of the specification, the PTO’s construction runs afoul of the claims and specification. A claim construction that excludes a preferred embodiment is “rarely, if ever, correct.” *Kaneka Corp.*, slip. op. at p. 8. A construction that excludes *all* disclosed embodiments “is especially disfavored.” *Id.* at pp. 8-9.

**Database versus Cache:** The PTO’s construction of the term “database” as it applies to a “cache” is also flawed. The claims recite that a database is contained within “one or more tangible computer-readable mediums.” The claims also recite that the database at issue has a defined structure that includes entries for a plurality of residential properties with each entry having multiple fields. The specification similarly defines what the database at issue looks like. See, e.g., paragraph [0073]-[0075](JA1998-99). The specification, as with the claims, also discloses that the data within the database can be queried. See, e.g., paragraph [0025]-[0026](JA1986).

In contrast, the Examiner’s broad construction of a database is so tortured that it literally includes a notebook. ExAnswer at p. 17 (JA0152). There is no evidence – or even an assertion – that Sklarz’ cache has a definable structure that includes a plurality of entries with each entry containing an AVM value. There is no evidence that Sklarz’ cache can be queried. There is no evidence that Sklarz’ cache is embedded in a computer-readable medium. A cache is not a database.

The Examiner’s technique for equating a cache as a form of database is an example of *false equivalence* (i.e., by addressing traits that sound common to both items) based on ignoring real differences, by making false and unsupported claims (e.g., that Sklarz’ cache can be queried), by refusing to consider evidence, and by

feigning confusion when convenient. Using the Examiner's approach, almost anything can be argued to be something entirely different in order to give rise to absurd rejections. Potatoes, for instance, have skin, eyes and are generally dormant during the winter, but that doesn't make a potato a bear.

***B. A Cache Cannot Be A Database In View Of The Fact That Long Settled Law Has Established That Abstract Data Structures Are Not Machines***

At issue is whether a cache memory can plausibly be a database under the law. Appellants have argued that the Examiner's construction is bereft of evidence and based on erroneous logic, and maintain those positions.

According to the Examiner, a database is a "collection of related data." ExAnswer at p. 16. A mere collection of data is an abstract that is *per se* unpatentable. See, *Digitech v. Electronics for Imaging*, 758 F.3d \_\_\_\_ slip op. at pp. 6-7 (Fed. Cir. 2014) (holding that "device profile" claims were unpatentable under §101 because they were "directed to a collection of numerical data that lacks a physical component or physical manifestation."). See also *In re Warmerdam*, 33 F.3d 1354, 1361 (Fed. Cir. 1994) (holding that a claim reciting a data structure *per se* is nonstatutory).

In contrast to an abstract collection of data, a cache is a physical machine used to store data, which the Examiner himself acknowledges in his June 12, 2014,

Office Action (p. 27 (JA0531), end of first full paragraph) stating: “[t]he cache is a form of *computer memory* that stores data so that a computer can access it” (emphasis added). Merriam-Webster similarly defines a cache as “a computer memory with very short access time used for . . . recently used instructions or data.” See, JA0324.<sup>8</sup>

Thus, the PTO and Appellants are in partial agreement on definitions. A database is an abstract collection of data, and a cache (being a form of computer memory) is a physical apparatus.

With the above-descriptions in mind, the PTO has concluded that a database (an abstract construct *per se* ineligible under §101) is a type of memory/apparatus, which is eligible subject matter under §101. The PTO’s conclusion is absurd and because the Board failed to consider all of Appellants’ arguments and evidence, the Board’s holding on this issue merits no deference.

#### **IX. The PTO’s §102/103 Rejections Should Be Reversed Because There Is No Evidence That A Sklarz-Valuation Is Ever Placed In A Cache**

The Examiner falsely asserted that Sklarz’ cache at some point contains an AVM value. Assuming for the sake of argument that Sklarz does produce AVM

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<sup>8</sup> The Dictionary of Electrical and Computer Engineering (McGraw-Hill 2004) defines a memory as “[a]ny apparatus in which data may be stored and from which the same data may be retrieved; especially, the internal high-speed, large capacity working storage of a computer.”

values (which Appellants contest), the Examiner's assertion that such values are placed in a cache has no evidentiary support. The Board's May 21, 2015, decision (page 9 (JA0044)) merely repeated the Examiner's erroneous "findings" without comment on what Sklarz actually discloses.

Appellants challenged the Board's decision (June 26, 2015, Request for Rehearing) requesting that the Board point to the exact passages of Sklarz that disclose an AVM estimate stored in a cache.

The Board's response (pp. 5-6 (JA0006-07)) was to cite two paragraphs in support of the rejections: [0213] and [0223].

Paragraph [0213] is reproduced below for convenience.

**[0213]** The VYH server software caches queries, and the response generated by a query, for a period of time ("cache period") selected by the operator of a VYH service. By accessing cached queries and responses, the VYH invention accelerates the provision of responses when the same query is received within the cache period.

As shown above, paragraph [0213] makes no disclose of what data is stored other than queries and responses to queries.

Paragraph [0223] (reproduced below) is similarly lacking.

**“[0223]** As shown in FIGS. 12 through 14, to generate a comparable market analysis, the user completes and submits query pages similar to the ones generated by the trend engine and selects properties from a list showing properties that have recently sold and that are within a user-selectable radius or rectilinear distance from the subject property.

Optionally, other proximity parameters can be used to restrict the property data submitted to the comparable market analysis engine. After entry of data, the VYH comparable market analysis engine applies algorithms that weigh the key features of the subject property versus the features of the comparable properties to provide an estimated appraised value (predicted sales price) for the subject property. In the comparable market analysis engine, data regression algorithms and similar techniques are used that allow the prediction of the sales price of the subject property, based on data related to actual sales of similar properties within a user selectable geographic proximity range to the subject property, and within an user selectable sales-date time range (relative to the date of the user's query)." (emphasis added)

As shown above, paragraph [0223] demonstrates that a Sklarz-valuation is never produced as an output of a query. Paragraph [0223] refers to queries solely for the purpose of selecting comparable properties "that are within a user-selectable radius or rectilinear distance from the subject property." Comparable properties are the resultant outputs to queries, not end valuations. The Board's findings are the result of an erroneous reading of paragraphs [0213] and [0233], a lack of understanding of the relevant technology, and a failure to consider Appellants' expert witness, who has provided evidence that "database queries do not perform any form of predictive analysis that could form the basis of an AVM." (JA0232)

The irony is that, in order for a Sklarz-valuation to be placed in a cache as the Examiner insists, the valuation must be in a database to begin with. If there



were such a database containing valuations, then the Examiner would not need to cite a cache as being a database. Another irony is that the entire purpose of the cache is to not perform a query on the VYH database. That is, storing previously queried outputs in the cache allows Sklarz to not repeat the same query over potentially hundreds of thousands of individual records in favor of a single cache hit. A cache hit is not a query, and the PTO has provided no evidence that a cache hit is a form of query or requires a query. The final irony is that, during the cache period where no query is performed, data in the cache cannot be updated because no new query is performed.

**X. The §103 Rejections of Claims 134, 143 and 146 Should Be Reversed Because The Modification Of Sklarz As Suggested By The Examiner Would Not Result In The Claimed Methods And System, And The Examiner Cited No Evidence Or Coherent Rational To Support His Rejections**

Sklarz and Florance do not suggest the device of claim 133 (and similarly of claim 145) that further includes a “map-like display containing at least: (1) respective icons for each of a plurality of residential properties within the respective geographic region, the icons being spatially distributed relative to one another based on the geographic information, and (2) at least one AVM value for one of the plurality of residential properties.”

The Examiner asserts (JA0516, lines 12-13): “Sklarz does not mention the use of a map for purposes of displaying information relating to home prices for a given region; it is just disclosed in a general sense.” While the Examiner further asserts (JA0517, lines 6-9) that “[i]t would have been obvious . . . to further use a map with popup windows as is disclosed by Florance in the system of Sklarz, so that the results of the query can be presented in a *more user friendly format . . .*,” (emphasis added) *this is nothing more than the Examiner’s subjective opinion and not an objective fact.*

Appellants assert that whether an interface is or is not more “user friendly” than another does *not* depend on the array of available graphics or how pretty a display is, but rather how intuitive and easy the interface achieves an end goal. As the end goal in Sklarz is to provide a valuation of a single property, what could be simpler and easier than displaying a page (such as that shown in Fig. 15 of Sklarz) with the pertinent information printed thereon? The user needs to do nothing. In contrast, the Examiner’s proffered modifications force a user to search through a map to find the appropriate icon, then “click” the icon before receiving the appropriate information. More complex does not mean more user friendly.

The Examiner provides no valid reason to incorporate icons into Sklarz’ color-coded maps. While the Examiner opines (page 13 (JA0527), lines 10-13)

that “[t]his is desirable because it would allow for the viewer of the overall region where the properties are located,” this feature is already available in Sklarz’ existing maps. While the Examiner further opines “it would allow for the zooming in and out, as disclosed by Florance,” zooming in and out has nothing to do with embedding icons and displaying property values, does nothing to enhance a user’s ability to view valuation information, and makes displaying resultant valuations more difficult.

Still further, the Board (see pp. 13-14 (JA0048-49)), as well as the Examiner, failed to address Appellants’ expert witness, who declared that one of ordinary skill in the art would not make the suggested modification without financial incentive. See, JA0234-35. Appellants are aware that an Examiner can rely on different motivations to justify a combination of references, but the PTO cannot just ignore evidence that teaches away from a modification of a reference. To wit, Mr. Hixson expressed:

“Software does not write and maintain itself . . . and no business circa 2003 or today would be likely to invest in that sort of software development without profit motive.

. . .

It is not that user-definable displays or pop-up displays could not be applied, but that in my professional opinion they would be inappropriate as they would add great costs with no apparent benefit given the nature of the Sklarz business model of producing valuations one at a time by hand and for a fee.” (Decl. at pages 7-8 (JA0234-35))

There is no discussion of Mr. Hixson's opinions anywhere in the June 12, 2014, Office Action (see pages 15 (JA0519) et seq.) or the Examiner's Answer (see pages 18-19 (JA0153-54)) as they pertain to claims 134, 143 and 145. The Board (see pages 13-14 (JA0048-49)) similarly could not be bothered to address evidence before it.

**XI. The §§102/103 Rejections of Claims 135, 136, 137, 138, 141, 147, 151 and 155 Should Be Reversed Because The Examiner Cited No Evidence To Support His Rejections, And Because The Rejections are Based On Legal Fallacies**

As stated above, mere conclusory statements fail the substantial evidence test for core issues of patentability. *K/S HIMPP*

***A. Claims 135, 136, 147, 148 and 155***

At issue is whether the "majority of" and "substantially all" limitations of claims 135, 136, 147 and 148 should be given weight. The Examiner does not assert that the limitations of these claims are disclosed or suggested by any reference.

In his June 12, 2014, rejection (page 13 (JA0517)) the Examiner declined to give weight to the limitations at issue asserting that they were *akin* to descriptive, non-functional subject matter. Whatever it means to be "akin" to descriptive, non-functional subject matter is a mystery. What isn't a mystery is that there is no

evidence to support the Examiner's rejection, and that the Examiner never asserted that the limitations were taught or suggested by any reference. Further, the Examiner's statements made to support his proffered modification, i.e., that "[o]ne of ordinary skill in the art would want as much data as possible to be stored for as many properties as possible," (page 14 (JA0518)) is conclusory and lacks evidentiary support and articulated rationale.

Appellants timely challenged the Examiner's rejections by, *inter alia*, addressing the lack of evidence (JA0373 (top)) and legal authority (JA0372).

The Examiner's response was to not address these core issues of obviousness. See, ExAnswer at pages 34 (JA0169) et seq.

The Board then affirmed the Examiner by merely repeating the Examiner's conclusory motivations (see, e.g., the Board decision at page 15 (JA0050)), and asserted "the issue of the disclosure of AVMs has already been addressed . . . ."

Whether or not "the issue of the disclosure of AVMs has already been addressed," there was never any disclosure, or even an assertion, that the specific limitations of claims 135, 136, 147 and 148 were disclosed or suggested in any reference of record.

***B. Claims 138, 141 and 151***

At issue is whether the limitation of one or more computers being configured to distribute AVM values to mobile phones was anticipated or obvious *over a decade ago*. The Examiner cited no evidence to support his rejections, but instead pointed *exclusively* to Appellants' specification for the idea that the limitations of claims 138, 141 and 151 technically could have been met. ExAnswer at pages 36-39 (JA0171-74). However, for an obviousness rejection to be valid "[t]here must be some reason, suggestion, or motivation . . . [that] cannot come from the applicant's invention itself." *In re Oetiker*, 977 F.2d 1447.

The Board, however (pages 15-16 (JA0050-51)) refused to address the hindsight issue, and merely repeated the Examiner's conclusion that "Appellant[s are] just using known technology at the time of the invention in the form of a generic cell phone."

There is no evidence in this case that mobile phones were considered replacements for general-purpose computers *at the time of the invention*. The Examiner cited no evidence (other than Appellants specification), ignored the fact that the phones today are not the same phones at the time of the invention, and ignored the fact that the interface requirements of Sklarz are not the interface requirements of Appellants' methods and systems. Appellants' disclosure is not

evidence that the Examiner's suggested modifications to a completely different device were obvious or possible.

Regarding the §102 rejection, the PTO recites no legal authority to justify its position. Given the total lack of legal authority cited by the PTO, Appellants are left guessing as to how to respond. While the PTO has asserted that mobile phones were not positively recited, this does not relieve the PTO of addressing the positively recited limitation of computers being "configured to distribute the AVM values to any one of a plurality of mobile phones." *Compare In re Giannelli*, 739 F.3d 1375 (Fed. Cir. 2014) (giving weight to the limitation of a device "adapted to" perform an operation).

### ***C. Claim 155***

Claim 155 recites "perform[ing] a differential value search (DVS) query on properties offered for sale to identify one or more identified residential properties, a DVS being a difference between a residential property's AVM value and its offer for sale price."

The PTO relies on paragraph [0256] of Sklarz for this limitation.

Appellants' response is simple and straightforward: Paragraph [0256] makes no disclosure that could remotely be construed as a DVS. Distinctly missing from paragraph [0256] is any mention of an offer for sale price.

## **XII. Conclusion**

For reasons stated above, each and every rejection should be reversed, or in the alternative, vacated and remanded.

/Burman Y. Mathis/  
Burman Y. Mathis  
Attorney for Appellants



### **XIII. Addendum**

#### **Attachments:**

1. Decision by the Board Rendered May 20, 2015; and
2. Decision by the Board Upon Reconsideration Rendered July 21, 2015.



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RUHL, DENNIS WILLIAM

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PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARIO VILLENA and JOSE VILLENA

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Appeal 2015-000414  
Application 10/536,692  
Technology Center 3600

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Before ANTON W. FETTING, NINA L. MEDLOCK and  
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

DECISION ON REQUEST FOR REHEARING  
AND REHEARING *EN BANC*

The Appellants request rehearing of our Decision entered May 20, 2015, in which we affirmed the Examiner’s rejections of claims 133–151 and 155 under 35 U.S.C. § 103 (a) (Request for Rehearing and Request for Rehearing *En Banc*, filed June 14, 2015, hereinafter “Req. Reh’g” and Supplemental Request for Rehearing and Supplemental Request for Rehearing *En Banc*, filed June 24, 2015, hereinafter “Supp. Req. Reh’g”).

The Appellants also request *en banc* review for some issues raised in the Request for Rehearing.

Appeal 2013-001252  
Application 12/418,484

Requests for Rehearing are limited to matters misapprehended or overlooked by the Board in rendering the original decision, or to responses to a new ground of rejection designated pursuant to § 41.50(b). 37 C.F.R. § 41.52.

### ISSUES ON REHEARING

The Appellants raise Issues I–V in the Request for Rehearing, and Issues VI–VIII in the Supplemental Request for Rehearing, as follows:

- I. The Decision raises a new ground of rejection by changing the scope of the Examiner’s construction of claim 133.
- II. Some issues should be addressed by a rehearing *en banc* because claim construction is handled inconsistently from panel to panel.
- III. The 35 U.S.C. § 101 rejection should be reversed because the Decision’s construction of claim 133 does not reflect the claim as a whole, and include limitations not found in the claim.
- IV. The 35 U.S.C § 102 and 35 U.S.C § 103 rejections should be reversed because a cache cannot be a database per the Examiner’s findings.
- V. The 35 U.S.C § 102 and 35 U.S.C § 103 rejections should be reversed because there has been no showing by the Examiner that Sklarz’s cache contains a single valuation produced by one of its engines.
- VI. The rejection under 35 U.S.C § 102 should be reversed because the Examiner never asserted that all the limitations of the independent claims are disclosed in Sklarz and there is no inherency demonstrated.
- VII. The 35 U.S.C § 102 and 35 U.S.C § 103 rejections should be reversed because the Decision wrongly ignored evidence without cause.
- VIII. The 35 U.S.C § 102 and 35 U.S.C § 103 rejections should be reversed because improper evidence was considered, and the evidence was not considered as a whole.

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## DISCUSSION

### *Issue I*

In the Request, the Appellants seek a rehearing related to an alleged change in the Examiner's construction of claim 133 in the Decision. The Appellants state that:

The Examiner asserts that the claim(s) is/are directed to "providing of AVM values to customers, including updated AVM values." See Examiner's Answer p. 3, second paragraph.

This construction is not the construction adopted by the PTAB. To the contrary, the PTAB's construction, which is broader than the Examiner's construction, is that claim 133 is directed to "providing updated AVM values to customers." PTAB Decision, p. 3, last paragraph.

Req. Reh'g; at 3.

The citation the Appellants refer to in the Decision is a verbatim quote from the Answer. *Compare* Decision at 3 and Answer, mailed September 5, 2014, hereafter, "Ans." 3. The Appellants' identification of changes in wording appears to be due to differences within the wording of Answer itself (Ans. 3). The quotation in the Decision was not intended to be, nor does it serve as, the panel's claim construction for any claim term.

### *Issue II*

In the Request, the Appellants seek a rehearing *en banc*, alleging that there are inconsistent outcomes in Board decisions, and the claim as a whole should be considered pursuant to *Alice*. *Alice Corp. v. CLS Bank Int'l*, 134 S. Ct. 2347

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(2014). The Appellants further contend that the panel did not give weight to the “AVM” term of the claim.

In rendering the Decision, the panel considered the “AVM” term, as well as the claims as a whole, giving weight to each word and limitation. We, therefore, decline the invitation to address portions of the Decision *en banc*.

### *Issue III*

In the Request, the Appellants contend that under both of the different alleged claim constructions of the Examiner and the panel, the construction added the term “customer” to claim 133, and adding limitations to a claim is impermissible so the Examiner’s § 101 rejection should be reversed. The Appellants further allege that proper weight was not afforded to all terms in the claims.

As discussed above, there is no differing claim construction between the Examiner and the panel. Additionally, the record does not indicate that the Examiner construed the term “customer” or “user.” The issue of the use of the term “customer” by the Examiner in the rejection has been raised for the first time in this Request. Although we could decline to address this issue,<sup>1</sup> we state that although the Examiner used the term “customers,” because it was used interchangeably in a few instances with the claim term “users,” we assumed this was inadvertent harmless error. In evaluating the claims and rendering our

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<sup>1</sup> See 37 C.F.R. § 41.52 (A rehearing is limited to “the points believed to have been misapprehended or overlooked by the Board”); 37 C.F.R. § 41.37(c)(1)(iv) (“...any arguments or authorities not included in the appeal brief will be refused consideration by the Board for purposes of the present appeal.”).

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decision, we considered the claims as written, with the term “users,” ascribing no material difference due to the Examiner’s use of the term “customers.”

In rendering the Decision, the panel considered the claims as a whole, giving weight to each word and limitation. For instance, weight was afforded to updating of AVM values per claim 133, particularly in the review of the latency arguments proffered by the Appellants. *See* Decision at 4–5.

#### *Issue IV*

In the Request, the Appellants state that, according to the Examiner, a database is a “collection of related data” (Ans. 16), which the Appellants contend is abstract and unpatentable pursuant to *Digitech Image Technologies*, but a cache is a physical thing. *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014). On this basis, the Appellants seek reversal of the Examiner’s anticipation and obviousness rejections. This argument is raised here for the first time. Accordingly we were not placed in a position to consider this in the Decision.

#### *Issue V*

In the Request, the Appellants contend that the Examiner never identified a portion of Sklarz disclosing where a query produces an AVM estimate that is then stored in a cache, and, absent that showing, the obviousness and anticipation rejections should be reversed. The Appellants further state that they are entitled to this showing under 37 C.F.R. § 1.104(c)(2).

This issue was addressed in the Decision at 9 and 12–13. The Examiner referred to Sklarz for querying and calculation of AVMs (Sklarz Figs. 12, 16, ¶ 223). Responses to queries, including the estimated appraised value or predicted

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sales price (AVM), are stored in the cache by Sklarz's disclosed system. (Sklarz ¶ 214) ("The VYH server software caches queries, *and the response generated by a query*, for a period of time ("cache period") selected by the operator of a VYH service")(emphasis added).

#### *Issue VI*

In the Supplemental Request, the Appellants seek rehearing of the anticipation rejection of the claims, contending that the Examiner did not establish prima facie anticipation by demonstrating that the Sklarz reference discloses every element of the claims, either expressly or inherently. The Appellants identify two alleged issues related to anticipation: 1) that for claim 133, the Examiner did not demonstrate that the Sklarz cache contains an AVM value for "a plurality of properties"; and 2) that the cache must repeatedly update cache values—although Appellants note the Examiner found that it has the ability to perform that updating, a user can choose to never perform an update. The Appellants also add that because Sklarz allows variable cache periods, if a user chose a sufficiently short time period, it would preclude the possibility of meeting the claim limitations. These specific arguments are raised here for the first time. Accordingly we were not placed in a position to consider this in the Decision.

#### *Issue VII*

In the Supplemental Request, the Appellants contend that the panel disregarded evidence related to an article from National Mortgage Professional in the Decision that stated:

We further view the portion of the National Mortgage Professional Magazine referred to as more limited and



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distinguishable in context than the Appellants suggest. For instance, this article includes limited bullet points comparing AVMs with traditional appraisals and broker opinions only—where the traditional appraisals and broker appraisals both are understandably noted to require “human judgment.” It is not reasonable to rely on selected phrases taken out of context from a trade magazine to support a construction of AVMs which is as limited as Appellants advocate.

The Appellants specifically dispute the last sentence of this portion of the Decision, stating that nothing was taken out of context. To clarify, the panel was not suggesting that the Appellants misrepresented the statements in the article in any manner. Rather, our intent was to relay that, in our view, when the article is read in total, we do not find it sufficiently persuasive to support the Appellants’ position based upon a preponderance of the evidence standard. This evidence was not disregarded; it was fully considered by the panel in rendering our decision.

#### *Issue VIII*

In the Supplemental Request, the Appellants contend that the panel improperly introduced evidence at the oral hearing, and then did not consider the evidence as a whole, therefore, the anticipation and obviousness rejections should be reversed. The decision of the Board is “based exclusively on the written record in the Office,” and no other references were relied upon in rendering the panel’s decision. 37 C.F.R. § 1.2; *see also, In re Chaddix*, 209 USPQ 78 (Comm’r Pat. 1980).

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### CONCLUSION

In view of the foregoing, we have granted the Appellants' Requests to the extent that we have reconsidered our Decision, but we are not persuaded that we misapprehended or overlooked any points of law or fact in rendering our decision. We therefore deny the Appellants' request to modify our Decision and the Examiner's rejections remain affirmed.

### DECISION

We decline to reconsider the Appellants' arguments *en banc*.

Although we have reconsidered certain aspects of our original Decision in light of the Appellants' arguments, we decline to modify our original Decision.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

### DENIED

pgc



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EXAMINER
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RUHL, DENNIS WILLIAM

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MARIO VILLENA and JOSE VILLENA

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Appeal 2015-000414  
Application 10/536,692  
Technology Center 3600

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Before ANTON W. FETTING, NINA L. MEDLOCK and  
SHEILA F. McSHANE, *Administrative Patent Judges*.

McSHANE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants seek our review under 35 U.S.C. § 134(a) of a decision of the Examiner to reject claims 133–151 and 155. We have jurisdiction under 35 U.S.C. § 6(b). Appellants’ representative appeared for oral argument on April 28, 2015 in this appeal.

We AFFIRM.

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## BACKGROUND

The invention relates to a system for the creation and maintenance of databases identifying specific real estate properties and their Automated Valuation Method (“AVM”) (Specification, hereafter “Spec.” ¶¶ 1, 4, 15). Representative claim 133 is reproduced from the Corrected Appeal Brief<sup>1</sup> (Claims App.) as follows, with emphasis added to relevant claim limitations:<sup>2</sup>

133. A system for distributing real-estate related information, comprising:

one or more tangible computer-readable mediums that *includes one or more computer-searchable databases* with entries for a plurality of residential properties with each entry including at least: a first field containing an address of a residential property, and a second field containing an *automatic valuation method (AVM) value reflecting a computer-generated value of the residential property* identified by the address of the first field; and

one or more computers configured to:

*repeatedly update each of the AVM values using residential property information so as to enable the one or more databases* so as to repeatedly reflect market changes in the AVM values of the residential properties; and

distribute the AVM values to any one of a plurality of users over a publically-accessible network.

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<sup>1</sup> The Appeal Brief (hereafter “App. Br.”) filed on July 29, 2014 contains the majority of issues that Appellants bring in this Appeal. A Corrected Appeal Brief was filed on August 23, 2014 with a corrected Claims Appendix, corrected Summary of Claimed Subject Matter, and an Addendum directed to issues raised for claim 155 only. We will refer to the original Appeal Brief for the majority of the issues discussed herein, and refer to the corrected version for the text of the claims, and claim 155 issues only.

<sup>2</sup> Other claims, or relevant portions of the claims, necessary for an understanding of certain issues are reproduced in the “DISCUSSION” section below.

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The Examiner rejected claims 133, 141, 142, and 145 under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Sklarz.<sup>3</sup> The Examiner rejected claims 134–140, 143, 144, 146–151, and 155 under 35 U.S.C. § 103(a) as unpatentable over Sklarz and Florance.<sup>4</sup> (Non-Final Office Action mailed June 12, 2014, hereafter “Non-Final Act.,” 3–19). In the Answer, the Examiner entered a new ground of rejection of all the claims, claims 133–151 and 155, that are the subject of this Appeal under 35 U.S.C. § 101 as directed to non-statutory subject matter. (Answer mailed September 5, 2014, hereafter “Ans.” 3). Appellants opted to proceed under 37 C.F.R. § 41.41, addressing the new grounds of rejection in the Reply Brief (filed September 29, 2014, hereafter “Reply Br.” 5–11).

Pursuant to 37 C.F.R. § 41.37(c)(1), any arguments not included in the Appeal Brief will be deemed waived for purposes of the appeal. We confine our discussion to the issues and arguments raised by Appellants.

## DISCUSSION

### *35 U.S.C. § 101 Rejection*

Citing *Alice Corp. v. CLS Bank Int’l*, the Examiner rejected all the claims at issue, finding that they “do not amount to significantly more than an abstract idea. The claim(s) is/are directed to the abstract idea of providing updated AVM values to customers, something that amounts to a method of organizing human activities as well as being a fundamental economic practice.” (Ans. 3 (citing *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347 (2014)). More specifically, the Examiner found that the steps

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<sup>3</sup> US Publication 2002/0087389 A1, published July 2, 2002.

<sup>4</sup> US Publication 2004/0030616 A1, published February 12, 2004.

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of claim 133 are all routine and conventional, where repeatedly updating AVM values involves mathematical calculation using known algorithms, with the other elements not using more than generic computers and a generic network, where these additional elements do not add significantly more than the abstract idea itself (*id.* at 4). The Examiner also addressed the dependent claims, finding that the additional claimed functions do not transform the abstract idea into a patent eligible invention because the additional functions “are routine and conventional in the computing arts.” (*Id.* at 5).

The Appellants responded, contending that when the instant claims are addressed as a whole they are not sufficiently abstract to be patentable, and the claims are “more than ‘providing of AVM[] values to customers.’” (Reply Br. 5–9). The Appellants asserted that the claims are not directed towards organizing human activity, fundamental economic practice, ideas in and of themselves, or mathematical relationships or formulas (*id.* at 8–13). The Appellants also argued that the claims provide improvements including “improvements to the functioning of a computer implementing AVMs,” by providing reduced latency for providing present market value AVMs (*id.* at 13–16). Further, Appellants asserted that the invention is innovative where there is “no resource” available “for conveniently identifying the best investment properties for sale in a large region” and allows for a Differential Valuation Search to allow quick identification of properties at below market prices (*id.* at 16).

Upon consideration of the evidence on this record in light of the arguments advanced by the Examiner and Appellants, we find that Appellants have not identified reversible error in the Examiner’s determination that the claims are directed to non-statutory subject matter.

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Accordingly, we sustain the Examiner's rejection for the reasons set forth in the Answer. We add the following primarily for emphasis. Applying the first step of the *Alice* analysis, we agree with the Examiner that the claims are directed to the abstract idea of providing AVMs, a fundamental real estate practice, which was known in the real estate practice at the time of the invention. Turning to the second step of the analysis to determine whether there are additional elements that transform the nature of the claims into a patent eligible application, we also agree with the Examiner that although Appellants' claims require a computer and network, these are merely generic computing elements that perform generic known functions as claimed. *See Alice*, 134 S. Ct. at 2358 ("[I]f a patent's recitation of a computer amounts to a mere instruction to 'implemen[t]' an abstract idea 'on . . . a computer,' . . . that addition cannot impart patent eligibility.") (Citations omitted). The evidence in the record does not demonstrate that Appellants' purported features of decreased latency times, benefits for larger areas, and identification of prices below market value as compared to other real estate AVM systems are due to inventive concepts that are significantly more than what is achieved by implementing an abstract concept to operate faster and more efficiently on a computer and network.

*35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) Rejections of Claims 133, 141, 142, and 145 Over Sklarz*

The rejections under 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a) over Sklarz of claims 133, 141, 142, and 145 were argued as a group on common issues. We select claim 133 as representative.

AVMs and Database. Appellants asserted that the Examiner made factual errors concerning Sklarz's disclosures and that many of the claim



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limitations are not taught by the reference (App. Br.)<sup>5</sup> Appellants contended that Sklarz does not disclose the use of AVMs, database use, storage of valuations, updating a database of AVM values, and that the Examiner failed to provide sufficient motivation to modify Sklarz.

Appellants submitted that “AVM” is a term of art and Sklarz’s valuations do not fall within the definition provided as follows:

“Automated Valuation Model—An automated valuation model (AVM) is a mathematically based computer software program that produces an estimate of market value based on market analysis of location, market conditions, and real estate characteristics from information that was previously and separately collected. The distinguishing feature of an AVM is that it is a market appraisal produced through mathematical modeling. Credibility of an AVM is dependent on the data used and the skills of the modeler producing the AVM.”<sup>6</sup>

Appellants also referred to a further characterization of AVMs in National Mortgage Professional Magazine:

National Mortgage Professional Magazine describes an AVM as “Very fast and economical,” but with the weaknesses of “No human inspection or judgment and less certainty.”<sup>□</sup> While National Mortgage Magazine goes on to state that AVMs “use zero human judgment” but rather “a series of formulas,” the IAAO does qualify that human judgment in the form of the “skills of the modeler” is embedded within an AVM.<sup>7</sup>

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<sup>5</sup> The pages of the Appeal Brief are not numbered, so specific citations to it are not possible.

<sup>6</sup> See, Exhibit 7 (*Standard on Automated Valuation Models (AVMs)*, International Association of Assessing Officers, 5–8 (2003) (hereinafter “IAAO”)).

<sup>7</sup> See, National Mortgage Professional Magazine (<http://nationaimortgageprofessionai.com/news18232/appraisals-bpos-and-avms>), Exhibits 2, 3 (First and Second Declarations of William Kennedy).

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Further to this, Appellants contended that rather than disclosing the generation of an AVM as claimed, Sklarz teaches an appraisal that requires human input and is not automated. The appraisal issue aside, Appellants also essentially asserted that the Sklarz's evaluations—which Appellants refer to as Sklarz-evaluations—include human input and, therefore, fall outside of the industry-accepted term of art for AVMs. Appellants alleged that “a user applying direct human judgment uses an ‘appraisal engine,’ which ‘generates an appraisal (i.e., a sales price prediction or valuation) using output from the trend engine, output from the comparable market analysis engine, or a combination of outputs from those engines.’ See, paragraph [0248].” Appellants contended, the instant invention, in contrast, does not involve human input short of the initial programming (“‘Aren't the comparables going to be pre-programmed into the analysis and doesn't this come from a human being?’ The answer is ‘no,’ Comparables will not be pre-programmed into any machine. What is programmed is the ability of a machine to select comparables.”). In further support of their position, Appellants provided a Declaration from Lawrence K. Hixson (hereafter “the Hixson Decl.”), which stated that an AVM must be “produced by a computer-modeled system, and not directly by human judgment,” where the opinion relied upon the IAAO description and the National Mortgage Professional Magazine reference. Mr. Hixson further opined that Sklarz's “systems and methods require substantial interaction between humans and human judgment” because “Sklarz expressly compares its own valuations with AVMs” and “none of the Sklarz claims incorporates AVMs.” (Hixson Decl. 3–4).

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Additionally, Appellants alleged that Sklarz references AVMs for “comparison and contrast” purposes only in light of Sklarz’s disclosure that its own “trend engine has proven to be significantly more accurate than comparable market analysis, and with existing AVMs, when predicted and closed sales prices are compared.” (App. Br. (citing Sklarz ¶ 253)).

Intertwined with this issue are Appellants’ assertions concerning the use of a “cache” in Sklarz compared to the claimed use of a “database.” Appellants submitted that a cache is not a database and lacks features required by the claim, i.e., a cache cannot be queried or searched, and its storage duration is insufficient to allow the required functionality required by the claims (App. Br.). Mr. Hixson stated that equating a “cache” with a “database” is erroneous because, as described in Sklarz, it does not “add functionality other than speed.” (Hixson Decl. 5). Appellants further alleged that Sklarz does not disclose storing AVMs or updating them as claimed. Mr. Hixson stated that his opinion is based on the fact that Sklarz does not mention that it “stores past valuations,” that caches clear themselves out after a short time, and even with Sklarz’s teaching of a “cache period,” it is “inconceivable to a computer science professional in 2003 that a reasonable cache period . . . would extend to as much as an hour.” (*Id.* at 4–6 (citing Sklarz ¶ 213)).

The Examiner responded by stating that “*Sklarz discloses the use of AVM values as claimed consistent with the definition argued by the appellant for the term*” (Ans. 12). More specifically, the Examiner found that Sklarz explicitly distinguishes its use of the term “appraisal” from that of a formal human appraisal that is prepared by a certified or licensed appraiser (*id.* at 8 (citing Sklarz ¶ 3)). The Examiner further found that

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Sklarz discloses the generation of a predicted sales price which is the same as an AVM (*id.* at 8–14 (citing Sklarz ¶¶ 7, 14, 15, 18, 223, 248, 250 (“There are a number of techniques used in **computerized valuation, also known as automatic valuation models (AVMs)**, for estimating property values, **which is the same as predicting sales prices when done prospectively.**”))). The Examiner found that “Sklarz discloses that a predicted sales price of a residential property *can be calculated by using software algorithms that are executed by a computing system,*” which is “what an AVM is by definition.” (*id.* at 11).

As to the claimed database issues, the Examiner found that the cache disclosed in Sklarz can be queried and searched, noting that not only are the queries themselves stored, but also the responses (AVMs and associated property addresses) are stored, where the storage time for the cache can be set by the user for any time period (Non-Final Act. 7–8 (citing Sklarz ¶ 213, Figs. 12, 16); Ans. 17, 29)). Further, the Examiner found that AVM value updating is disclosed in Sklarz, and that Appellants’ argument relating to the way that the updating occurs is irrelevant to the system claims (Non-Final Act. 8–10; Ans. 27–29).

Motivation to Modify Sklarz. Appellants asserted that there is no motivation to modify Sklarz as the Examiner suggests, because there is no financial motivation to make the modifications to Sklarz that Examiner suggests, where the modifications would be prohibitively expensive to make and “unjustifiable without some indicia that the suggested changes would be profitable.” (App. Br.; Hixson Decl. 6–8). The Examiner responded that there is no requirement that the Examiner should develop financial evidence on the modifications to support an obviousness determination (Ans. 30).

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Secondary Considerations. Appellants presented evidence of the secondary indicia of nonobviousness of copying by others and success in the marketplace, based on the success of alleged copier Zillow as well as praise by peers, with June 25, 2007, September 5, 2007, and October 17, 2007 Declarations of William Kennedy submitted (App. Br., Reply Br. 34–38). The Examiner responded that there was no definitive evidence presented that Zillow had copied the claimed invention, and that success by others could not be used to support the alleged success of the instant invention (Ans. 41). The Examiner also stated that there had been no showing of a nexus between the claimed invention and commercial success (*id.*).

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Upon consideration of the evidence on this record in light of the arguments advanced by the Examiner and Appellants, we determine that Appellants have not identified reversible error in the Examiner's determination that the disclosures of Sklarz serve to anticipate and render obvious representative claim 133 pursuant to 35 U.S.C. § 102(b) and 35 U.S.C. § 103(a). We add the following for emphasis.

As an initial matter, we note that the term “AVM” as used in representative claim 133 is limited to being a part of the “second field” of a database where the AVM value has to “reflect” a “computer-generated value of the residential property,”<sup>8</sup> and where there are one or more computers

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<sup>8</sup> We note the use of the AVM term in the claim itself because here, as well as in other arguments, Appellants appear to have veered into comparisons of the details of how their system worked or works in practice, not the invention as claimed. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“It is axiomatic that the claims define the invention which an applicant believes is patentable.”). The patentability of the claims, and the

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configured to “repeatedly update each of the AVM values using residential property information so as to enable the one or more databases so as to repeatedly reflect market changes.” The instant Specification provides minimal description of AVMs (Spec. ¶ 36 (“The exemplary AVM device 230 is based on a combination of heuristic and statistical technologies.”)).

We view Appellants’ characterization of the definition of AVMs as inaccurate because we see no strict prohibition on any human interaction for AVM determination in Appellants’ chosen IOCC definition. The IOCC reference itself discusses providing for “mak[ing][] individual adjustments to the properties for unique features or that are subject to special influences, such as being located at a busy intersection or a premium or obstructed view” to AVM models<sup>9</sup> which would necessarily involve human interaction for this customization. We further view the portion of the National Mortgage Professional Magazine referred to as more limited and distinguishable in context than the Appellants suggest. For instance, this article includes limited bullet points comparing AVMs with traditional appraisals and broker opinions only—where the traditional appraisals and broker appraisals both are understandably noted to require “human judgment.” It is not reasonable to rely on selected phrases taken out of context from a trade magazine to support a construction of AVMs which is as limited as Appellants advocate.

Accepting the IOCC definition, we agree with the Examiner’s determination that Sklarz’s disclosures teach AVMs. Sklarz clearly differentiates a formal appraisal prepared by a certified or licensed appraiser

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relation to the disclosures of the prior art, are evaluated in light of the claims only.

<sup>9</sup> Exhibit 7, IAAO, § 2.3.6, p. 7.

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from the automated appraisal or valuation it teaches. Although in some embodiments Sklarz teaches some degree of human interaction in the overall process leading up to an AVM determination, “engines” only are used in the generation of the predicted sales price value. *See* Sklarz ¶ 18. Several of Appellants’ arguments are directed to Sklarz’s explicit comparison and contrasts to AVMs, where, for instance, the reference states “the trend engine has proven to be significantly more accurate than comparable market analysis, and with existing AVMs, . . . .” (Sklarz ¶ 253; *see also id.* ¶ 14). We acknowledge that Sklarz uses varying nomenclature, but a fair reading of the reference is that it promotes the use of its improved trending techniques to generate more accurate AVMs. The operative issue is whether Sklarz’s predicted sales price value as disclosed is an AVM. There is no *ipsissimis verbis* test for determining whether a reference discloses a claim element, i.e., identity of terminology is not required, and we concur with the Examiner that the use of AVMs is disclosed by the reference. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990). Therefore, Sklarz discloses an automated system to “produce[] an estimate of market value” based on market analysis of a variety of characteristics “from information that was previously and separately collected” with the use of “mathematical modeling.” *See, e.g.*, Sklarz ¶¶ 14, 15, 18, 248.

Turning to the issue of the cache, as it is disclosed in Sklarz, the cache can be queried and searched, and under a broadest reasonable interpretation as “a memory,” we agree with the Examiner that the cache is the equivalent of a database as claimed. We, therefore, concur with the Examiner’s finding that Sklarz discloses the use of a computer configured to allow the repeated updating of AVM values using residential property information that enable

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databases to reflect market changes of the AVMs. *See, e.g.,* Sklarz ¶¶ 51, 93.

Based on the Examiner's findings, we sustain the anticipation rejection of representative claim 133. We also determine that the Examiner has established prima facie obviousness; we have fully considered the Declarations provided in support of secondary considerations and, weighing all evidence of obviousness against all evidence of non-obviousness, we find the secondary considerations unpersuasive to rebut the prima facie obviousness determination.

*35 U.S.C. § 103(a) Rejection Over Sklarz and Florance*

Claims 134, 137, and 139. Claim 134, depending from claim 133, contains, in part, the additional limitation of:

generate a map-like display for a respective geographic region, each map-like display containing at least: (1) respective icons for each of a plurality of residential properties within the respective geographic region, the icons being spatially distributed relative to one another based on the geographic information, and (2) at least one AVM value for one of the plurality of residential properties.

Claim 139 includes the claim limitation "wherein each maplike display is configured such that a user selection of a first property in the map-like display displays a window containing at least an AVM value for the first property," and claim 137 includes the claim limitation "wherein each geographic region is defined based on information received from a user."

Appellants alleged that Sklarz and Florance in combination do not disclose a map with icons/popup and AVM information. More specifically, Appellants contended that the Examiner provided no basis for incorporation



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of Florance's icons into Sklarz's color-coded maps, nor provided for display of AVM information (App. Br.). Appellants also asserted that for claim 137 "the only reason Sklarz allows a user to define a geographic region is to allow a user to generate a list of comparable properties." (*Id.*)

The Examiner's findings include that "Florance teaches a very desirable manner by which real estate information may be displayed to the user, namely the use of maps with icons as claimed," where Sklarz "generally refers to the use of a map for real estate information." (Ans. 33). The Examiner further found that Florance discloses that with the use of an icon there is also a display of a pop-up information window (*id.* at 32 citing Florance ¶¶ 347, 348, Fig. 58), so Florance's icons in real estate maps and pop-ups are combinable with Sklarz's AVMs, "so that the results of the query can be presented in a more user friendly format to the user." (*Id.* at 33). As to claim 137, the Examiner found that "[t]he use of a user defined map with icons comes from Florance and . . . the AVM is the result of the query in Sklarz," further responding that the Appellants' arguments are akin to individually arguing each reference. (*Id.* at 35).

We find no error with the Examiner's findings and sustain the rejections.

Claims 135, 136, and 140. Claim 135 includes the limitation "wherein the residential properties include substantially all of the residential properties in a user-defined geographic region," and claim 140 includes the limitation "wherein the map-like display includes an AVM value for each of a plurality of residential properties." The Appellants contended that there is no disclosure of "substantially all of the residential properties . . ." in either Sklarz or Florance and that the Examiner's rejection is based upon the lack

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of recitation of any further structure for this clause and therefore the rejection was unsupported. (App. Br.). The Appellants also disputed the Examiner's obviousness rejection of this claim based on the contention that "[t]he Sklarz device produces single valuation having no need to ever be placed in a searchable database," where there would be no motivation to modify Sklarz because this information is private and there is no evidence that such motivation would be profitable. The Appellants disputed the obviousness rejection of claim 136 for the same or analogous reasons. (*Id.*)

In support of the obviousness rejection, the Examiner found that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to have substantially all, or all properties in a given area (including those offered for sale) be stored in the database." (Non-Final Act. 14).

The issue of the disclosure of AVMs has already been addressed, and we do not find the Appellants' additional arguments related to the obviousness issue to be persuasive, therefore we sustain the rejections of claims 135, 136, and 140 on that basis.

Claims 138 and 151. Claim 138 includes the limitation "wherein the one or more computers are configured to provide the display information to a plurality of mobile phones." The Examiner found that "[t]he use of cell phones to receive data via a network is very old and well known in the art and simply replacing the PC of Sklarz with a mobile phone would have been obvious to one of ordinary skill in the art." (Non-Final Act. 14). The Appellants contended that the Examiner's statement that "the mere sending of real estate information to a remote device in the form of a phone as

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opposed to a PC would have been obvious,” is conclusory, further stating that

[t]he examiner fails to discuss the technological limitations of, *inter alia*, cell phones, wireless bandwidth, and Wireless Applications Protocol (WAP) at the time of the invention . . . . Phones at the time of the invention had tiny, low-resolution screens unsuitable for anything other than displaying text at a font of 4 pt. . . . The appropriate issue is whether the most state of the art cellphone in 2003 had the capacity to enable a user to appropriately access the Sklarz device, including select comparable properties using color-coded maps.

(App. Br.).

The Examiner responded to Appellants’ argument stating that “the specification makes no mention of any structure to a cell phone that does what is claimed, other than the generic reference to a cell phone (with and without displays),” where “Appellant[s]’ specification discloses nothing more than the general idea that the device receiving the valuation data and the map to be displayed, can be a cell phone. The specification does not have any specific discussion as to how this is done by the appellant[s].” (Ans. 36–38). The Examiner further stated that “Appellant[s are] just using known technology at the time of the invention in the form of a generic cell phone” (*id.* at 38).

We do not find Appellants’ arguments persuasive; the claim is directed to “computers [that] are configured to provide the display information” and the issues that Appellants raise are beyond the scope of the claim. We, therefore, sustain the rejection of claim 138. Appellants additionally argued the rejection of claim 141 based upon the same arguments as those for claim 138, where we note that the rejection of

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claim 141 was previously affirmed over Sklarz alone, and the additional arguments presented here are not found to be persuasive. The rejection of claim 151 is also sustained; Appellants relied upon the same arguments as claim 141 and, therefore, those of claim 138.

Claim 155. Claim 155 includes the further limitation of “perform[ing] a differential value search (DVS) query on properties offered for sale to identify one or more identified residential properties, a DVS being a difference between a residential property’s AVM value and its offer for sale price.” Appellants alleged that the prior art references the Examiner relied upon for the rejection do not teach DVSs as claimed, where “Sklarz buy/sell signals are not directed to identifying individual homes, but to generally determining good times to enter or leave particular real estate markets.” (Corrected Appeal Brief (“Corr. App. Br.,” filed Aug. 23, 2014), Addendum to Sec. IV).

In response, the Examiner found that “[o]ne of ordinary skill in the art would have found it obvious to provide Sklarz with the ability to determine the difference between an AVM value and an offer for sale in an effort to be able to provide a prospective buyer with an indication of how the AVM value and offer price compare to each other.” (Non-Final Act. 49 (relying upon Sklarz ¶ 256)). Given Sklarz’s disclosure of an embodiment where “the appraisal engine also can be used for the benefit of identifying acceptable properties with lower predicted sales prices,” we find no error with the Examiner’s findings and sustain the rejection of claim 155.

## SUMMARY

The rejections of claims 133–151 and 155 are affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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## FORM 19. Certificate of Compliance With Rule 32(a)

**CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATION,  
TYPEFACE REQUIREMENTS, AND TYPE STYLE REQUIREMENTS**

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(Date)

**IN THE UNITED STATES COURT OF APPEALS FOR THE  
FEDERAL CIRCUIT**

**Appeal No: 16-1062**

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**In re Villena**

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**CERTIFICATE OF SERVICE**

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Counsel for Appellants certifies the following:

I hereby certify that on December 10, 2015, I electronically filed the foregoing CORRECTED APPEAL BRIEF with addendum, Statement of Interest (page i) and Certificate of Compliance (form 19) with the Court's CM/ECF filing system, which constitutes service, pursuant to Fed. R. App. P. 25(c)(2) and Fed. Cir. R. 25(a), on counsel for Appellee.

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